

**THE
EQUITY DURATION
OF
SOUTH AFRICAN GROWTH COMPANIES
A THEORETICAL AND EMPIRICAL EVALUATION**



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at the University of Stellenbosch.

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DECLARATION

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

ABSTRACT

This assignment sets out to address the concept of equity duration, where equity duration is viewed as a measure of the interest rate sensitivity of common stock's market value. The traditional use of standard dividend discount models, results in extremely long duration estimates for equities - in the order of 10 years for income stocks to 25 years and more for growth companies whose cash flows are not expected to materialize until some future period.

Leibowitz (1986) identified an alternative approach for assessing equity duration empirically. These empirical estimates of actual stock price sensitivity to underlying changes in interest rates imply that equities behave as if they are much shorter duration instruments.

Various attempts have been made to reconcile the difference between theoretical predictions of equity duration and empirical findings. The differences in duration of assets in place and growth opportunities are given as a possible reason for the above mentioned differences. It is argued that investment opportunities are similar to options a company has. These option-like characteristics of growth opportunities may alter the basic relationship between equity valuation and interest rate changes.

The option framework suggests that the duration of growth companies may be shorter (not longer) than those of assets in place. The results from option theory can however not be applied directly to growth options, since some of the assumptions may not be valid in the case of growth options. The presence of these growth options makes it virtually impossible to calculate equity duration theoretically.

This study empirically tests the relationship between growth opportunities and equity duration by focussing the attention on the interest rate sensitivity of South African growth companies.

The following hypotheses regarding equity duration and growth companies are postulated:

- There is a significant difference in interest rate sensitivity between growth companies and low-growth companies.
- There is a significant difference between duration of growth companies measured using nominal interest rates and duration of growth companies using real interest rates.

All non-mining companies on the Johannesburg Securities Exchange SA, for the period 1980 to 2000, were analysed. These companies were sorted into different portfolios that reflected their growth opportunities. Market capitalisation, book-to-market and price-earnings ratios were used as proxies to rank companies according to growth opportunities.

The results from univariate regressions suggest positive duration for common equities. The negative relationship between equity returns and changes in nominal interest rates are independent of size, book-to-market or price-earnings ratios of the sampled companies.

Including the market factor as an independent variable results in markedly different equity duration. The duration is correlated with size, as both coefficients and t-statistics increase when moving from small companies to larger companies. In addition, the small companies have negative not positive duration, as was the case for simple univariate regressions. There is also some evidence that high growth portfolios, as measured by low book-to-market and high price-earnings ratios, are less sensitive to interest rate changes than low growth portfolios.

Employing all three Fama and French's factors, there is no longer a cross-sectional dependence on company size, with the mean duration being close to zero and statistically insignificant in virtually all cases. Also, when dividing changes in the nominal interest rate into changes in real rates and changes in inflation, it does not significantly affect the estimates of equity duration.

The author found no evidence to support the stated hypotheses, when employing the Fama and French's three factor model. This may mean that the relationships are subsumed in the Fama and French risk factors.

SAMEVATTING

Hierdie werkstuk bestudeer die konsep van die duur van gewone aandele (equity duration), waar die duur van 'n gewone aandeel gedefinieer word as 'n maatstaf van die rentekoers-sensitiwiteit van die markwaarde van die aandeel. Die tradisionele gebruik van standaard dividend verdiskonterings modelle, lei tot uiters lang duur beramings vir gewone aandele - in die orde van 10 jaar vir inkomste aandele tot 25 jaar en meer vir groei ondernemings wie se kontantvloei nie verwag word om te materialiseer voor 'n sekere toekomstige datum nie.

Leibowitz (1986) identifiseer 'n alternatiewe empiriese benadering vir die beraming van gewone aandeel duur. Hierdie empiriese bepaling van die sensitiwiteit van die werklike aandeelprys tot onderliggende veranderinge in rentekoerse, impliseer dat gewone aandele reageer asof hulle baie korter duur instrumente is.

Verskeie pogings is aangewend om die verskille tussen teoretiese voorspellings van gewone aandeel-duur en empiriese bevindings te rekonsilieer. Die verskille tussen duur van bates in plek en groei-geleenthede word aangevoer as 'n moontlike rede vir bogenoemde verskille. Dit word geargumenteer dat investeringsgeleenthede soortgelyk is aan die opsies wat 'n onderneming het. Hierdie opsie-soortgelyke eienskappe van groei-geleenthede kan die basiese verhouding tussen gewone aandeel waardasie en rentekoers verandering wysig.

Die opsie raamwerk dui daarop dat die duur van groei-ondernemings korter kan wees (en nie langer nie) as die van bates in plek. Die resultate van opsie teorie kan egter nie direk toegepas word op groei-opsies nie, aangesien sekere van die aanames nie geldig mag wees in die geval van groei-opsies nie. Die teenwoordigheid van hierdie groei-opsies het tot gevolg dat dit feitlik onmoontlik is om gewone aandeel-duur teoreties te bereken.

Die studie toets empiries die verhouding tussen groei-geleenthede en gewone aandeel-duur deur te fokus op die rentekoers sensitiwiteit van Suid Afrikaanse groei-ondernemings. Die volgende hipoteses met betrekking tot die gewone aandele duur en groei-ondernemings word gestel:

- Daar is 'n betekenisvolle verskil in rentekoers sensitiwiteit tussen groei-ondernemings en lae groei-ondernemings.

- Daar is 'n betekenisvolle verskil tussen duur van groei-ondernemings gemeet deur gebruik te maak van nominale rentekoerse en duur van groei-ondernemings deur gebruik te maak van reële rentekoerse.

Alle nie-myn ondernemings op die Johannesburg Sekuriteite Beurs SA, vir die periode 1980 tot 2000, is ontleed. Hierdie ondernemings is gesorteer in verskillende portefeuljes wat hulle groei geleenthede reflekteer. Markkapitalisasie, boek-tot-markwaarde en prysverdiensverhoudings is gebruik as maatstawwe om ondernemings te rangskik volgens groei-geleenthede.

Die resultate van enkel veranderlike regressies dui positiewe duur aan vir gewone aandele. Die negatiewe verhouding tussen aandeelopbrengs en verandering in nominale rentekoerse is onafhanklik van grootte, boek-tot-markwaarde of prysverdiensverhoudings vir die getoetste ondernemings. Indien die markfaktor ingesluit word, as 'n onafhanklike veranderlike, lei dit tot opvallend verskillende gewone aandeel-duur. Die duur is gekorreleer met grootte, met beide koëffisiënte en t-statistieke wat styg wanneer beweeg word van klein ondernemings tot groter ondernemings. Addisioneel, die klein ondernemings het negatiewe, nie positiewe duur, anders as in die geval van eenvoudige enkel veranderlike regressies. Daar is ook bewyse dat hoë groei portefeuljes, soos gemeet deur lae boek-tot-markwaarde en hoë prysverdiensverhoudings, minder sensitief is vir rentekoers veranderinge as lae groei portefeuljes.

Met die aanwending van al drie Fama en French se faktore is daar nie meer kruis-selektiewe afhanklikheid (cross-selectional dependence) op ondernemingsgrootte aanwesig nie, met die gemiddelde duur wat naby nul is en statisties onbedeidend in feitlik alle gevalle is. Wanneer die verandering in die nominale rentekoers verdeel word in veranderinge in reële koerse en veranderinge in inflasie, beïnvloed dit ook nie betekenisvol die bepaalde gewone aandeel duur nie.

Die outeur het met die gebruik van die Fama & French drie faktor model geen bewyse gevind wat die vermelde hipoteses staaf nie. Dit mag beteken dat die rente-risiko verwantskappe in die Fama en French risiko faktore vervat is.

DEDICATION

This assignment is dedicated to my wife Mia

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CHAPTER 1

1. INTRODUCTION: BACKGROUND, OBJECTIVES AND OVERVIEW

1.1 Background to the study

The fact that a rise in interest rates decreases the market value of bonds, are by now very well understood. It is clear that a fixed stream of income (coupon payments) is worth less in an environment of high interest rates. This risk known as interest rate risk, is the largest single source of risk faced by investors in the bond market.

Participants in the bond market need to measure the price volatility of a bond in order to control interest rate risk and to implement the necessary strategies. The accuracy of the estimated value of a position after a change in the interest rate is crucial in measuring interest rate risk. Therefore it is important that a reliable valuation model be used to insure proper measurement of interest rate risk exposure.

There are two approaches to measure interest rate risk. The most obvious way is known as the full valuation approach or scenario analysis where interest rate risk exposure of a bond is measured by re-valuing it for a given interest rate scenario. According to Fabozzi (2000: 244) the duration/convexity approach can be used as an alternative to the full valuation approach. When dealing with a portfolio consisting of a large number of bonds, the full valuation process can be very time consuming.

Therefore, investment managers wanted a measure that can be used to give an idea of how a single bond or a portfolio will react to interest rate changes without the need to re-value the portfolio each time.

This is made possible through the use of the duration concept, which measures the approximate sensitivity of a bond's value to a change in interest rates. More specifically, duration is used as the approximate percentage change in value of a bond, for a 100 basis point change in interest rates. To improve on the estimate provided by duration, another measure called convexity can be used.

Although the application of duration in fixed-income securities has received widespread attention by both researchers and practitioners, the role of duration as a measure of interest rate risk for equities has also been studied.

Equity duration is the term commonly used to represent the sensitivity of the market value of equity to changes in interest rates. Equity duration is important because most portfolios consist not only of fixed income securities, but also common stocks. Understanding how interest rates affect the value of equities help investment managers to shield their total portfolios against the potential risk of interest rate changes.

A better understanding of the relationship between changes in interest rates and stock prices is very important because interest rates affect the investment environment in which investment managers operate. Investment managers can use equity duration to improve common stock returns by adjusting the composition of their portfolios to benefit from swings in market interest rates.

As in the case of fixed income securities, analysts searched for a reliable valuation model when analyzing the interest rate sensitivity of equity values. Calculating equity duration has proven to be difficult because the cash flows (expected future earnings or dividend payments) are uncertain. Likewise the timing and amount of the final cash flow are uncertain. An alternative form of analysis using straightforward regression techniques has been used to estimate empirically actual stock price sensitivity to interest rate changes. These empirical duration values were significantly lower than the duration estimates derived from traditional valuation models such as the Dividend Discount Model (DDM).

This study deals with the effect of interest rate changes on South African growth companies. Traditional valuation models suggested that growth companies would have higher duration (will be more sensitive to interest rate changes) than low-growth companies. This is because growth companies' distant cash flows are relatively greater than their current cash flows. As interest rates increase the value of future cash flows (dividends) will decline because the future cash flows is discounted at a higher rate. In summary, it was believed that an increase in growth opportunities, were accompanied by higher interest rate sensitivity.

More recently, studies of equity duration have suggested that growth opportunities alter the basic relationship between equity valuation and interest rate changes. Under certain circumstances growth companies were found to have lower duration (less sensitive to interest rate changes) than non-growth companies.

Traditional studies simplistically treated a company's future investment opportunities as if they were certain to be undertaken. It can however be argued that growth opportunities are distinct from assets in place, because the company has committed capital to the latter but not to the former. A company therefore has the option to make future investments, and will do so only if conditions are right.

According to Hevert, McLaughlin and Taggart (1998), this choice to undertake future projects, makes growth opportunities akin to call options. Option pricing theory suggests that the values of call options will increase with interest rates. This behaviour is the opposite of that of discounted cash flow patterns where the value decreases then the discount rate increases. Therefore it is argued that it is inappropriate to use discounted cash flow techniques to value assets with a substantial option component.

It is plausible that assets in place and growth opportunities would differ in their level of sensitivity to interest rate changes. Growth opportunities entail an option element, which is expected to react differently to interest rate changes than ordinary discounted cash flow streams suggest. Capital has also not yet been committed to growth opportunities, and they may therefore differ from assets in place in their ability to react to shocks in expected inflation or real interest rates.

A better understanding of the relationship between equity duration and South African growth companies can be of help to investment managers who seeks to implement better investment strategies.

The changes in nominal interest rates may be as a result of changes in real interest rates rather than changes in inflationary expectations. Leibowitz, Sorensen and Hanson (1989) argued that the stock market is less sensitive to changes in inflation expectations because companies can raise their prices, hence nominal growth rates. There is however little reason to expect such a high flow through factor for nominal interest rate changes due to changes in real rates. The fact that South Africa has seen large fluctuations in its inflation rate and real interest rates, accentuate the importance of using the duration approach to manage interest rate risk.

1.2 Objectives of the study

The main objective of this study is to provide insight into the interest rate sensitivity of South African growth companies. This would enable investment managers to manage interest rate risk better and to achieve higher returns on their portfolios by knowing in which type of equities to invest in the current interest rate environment.

The secondary objectives of the study are:

- To provide an in depth explanation of the development of duration and its applicability when investing in common equities.
- Attempting to resolve the conflict between predictions based on discounted cash flow techniques and predictions based on growth options theory concerning the sensitivity of equity prices to changes in interest rates.
- To indicate the relationship between equity duration and growth opportunities.

1.3 Hypotheses

The following hypotheses regarding equity duration and growth companies are postulated:

- There is a significant difference in interest rate sensitivity between growth companies and low-growth companies.
- There is a significant difference between duration of growth companies measured using nominal interest rates and duration of growth companies using real interest rates.

1.4 Scope of the study

For the purpose of this study all non-mining companies listed on the Johannesburg Securities Exchange (JSE), for which sufficient data were available during the period 1980 to the end of 2000, were used. The sample of companies is obtained from non-mining corporations listed on the JSE. This consisted out of five JSE sectors: non-mining resources, financial-industrial, real estate, development capital and venture capital. As the nature of growth opportunities differs between mining and industrial companies (see for example Trigeorgis, 1993), mining companies were excluded from the study.

1.5 Empirical research

The empirical research tests the relationship between growth opportunities and the duration of equity for South African companies.

The method is based on those used by Hevert et al. (1998), Sweeney (1998) and Cornell (2000). Hevert et al. (1998) used book-to-market (B/M) as a proxy for companies with high and low growth. Sweeney (1998) used price-earnings (P/E) and market value/net tangible asset (MW/NTA) as proxies for companies with high- and low growth. Cornell (2000) used B/M together with size as proxies for companies with high- and low growth.

Following Sweeney and Warga (1986) and Hevert et al. (1998) portfolios are examined rather than individual stocks. This precludes the investigation of company specific influences on interest sensitivity i.e. relative flow-through factors for inflation and real rate changes, but it filters out some of the noise associated with returns of individual companies. Portfolios were formed on the basis of growth opportunities, as measured by market capitalization (Cornell 2000), B/M ratios (Hevert et al. 1998) and P/E ratios (Sweeney 1998). Companies with lower market capitalization tend to have more growth opportunities than larger companies. The B/M ratio is the reciprocal of a widely used indicator of high or low growth companies, and is intended to capture the market's relative valuation of assets in place and future growth opportunities.

Higher relative market values associated with lower B/M ratios imply that more of a company's value is from potential future projects than from assets in place. The P/E ratio is a widely used measure of future growth with the advantage of distinguishing between companies that are merely expanding and those with growth opportunities. Portfolios composed of stock with high P/E ratios are assumed to have a high proportion of growth opportunities. Low P/E portfolios are assumed to have a high proportion of assets in place.

The sample of companies was obtained from McGregor's BFA databases. Non-mining companies listed during the twenty-one-year sample period from the beginning of 1980 to the end of 2000 form the basis of the study. If companies were delisted during certain years of the study, they were included for the years they were listed and had accounting data available on the database.

Market capitalization, B/M- and P/E ratios as at the previous financial year-end, were used to rank companies according to growth opportunities. These ratios were obtained from McGregor's BFA databases.

The companies in the sample were firstly ranked according to market capitalization. The result was then divided into quartiles, with the first quartile consisting of the largest companies and the fourth quartile having the smallest companies. An independent ranking was then performed, ranking these four sized groups individually according to B/M values. This process was then repeated for these four size groups, ranking them according to P/E values.

The final result, after firstly ranking according to size and then by B/M and P/E respectively, was thirty-two portfolios. Within each size quartile, the portfolios run from low B/M to high and from high P/E to low.

Share prices and dividends were also obtained from McGregor's BFA databases. Average monthly returns were then calculated for the thirty-two portfolios after adjusting for stock-splits.

There are several issues involved in the choice of an interest rate proxy. A decision has been made to always use the government bond rate with the longest time to maturity. This interest rate represents a risk free rate and overcomes the problem of changes in the risk premium through time. Monthly interest data for government bonds for the period 1980 – 2000 were obtained from the South African Reserve Bank Bulletin. Inflation data were obtained from the South African Central Statistics Yearbook.

Two sets of interest rate data were obtained, namely: average monthly yields on long-term government bonds, and month ending yields on long-term government bonds. The reason for considering both is because the use of average monthly yields can result in the change in interest rates and stock returns not aligning properly.

The monthly inflation rate is the fractional change in the Consumer Price Index (CPI). The real interest rate is calculated as:

$$RIR_t = \frac{1 + I_t}{1 + INF_t} - 1$$

where

RIR_t = real interest rate

I_t = nominal interest rate, and

INF_t = inflation rate.

The present research used six regressions to estimate interest rate sensitivity of common stock. The first is similar to one used by Bernard (1986) and Hevert et al. (1998). It represents an attempt to capture the interest sensitivity of common stock returns in the simplest possible terms, without any additional explanatory variables:

$$R_{i,t} = \alpha_i + \beta_{i,1} \Delta I_t + \varepsilon_{i,t} \quad (1)$$

where

$R_{i,t}$ = monthly return on each of the thirty-two portfolios

ΔI_t = change in the long-term nominal interest rate, and

$\varepsilon_{i,t}$ = error term, all in month t .

In addition, a variation of Equation (1) is estimated which separates the change in nominal interest rate into real rate and inflation rate components (assigned coefficients $\beta_{i,2}$ and $\beta_{i,3}$, respectively, in the estimation results)

$$R_{i,t} = \alpha_i + \beta_{i,2}\Delta RIR_t + \beta_{i,3}\Delta INF_t + \varepsilon_{i,t} \quad (2)$$

Leibowitz et al. (1989) suggested this variation arguing that the sources of interest rate changes may be important in determining return sensitivities.

The third regression follows Sweeney and Warga (1986) and Hevert et al. (1998) by controlling for the overall market factor, $R_{M,t}$:

$$R_{i,t} = \alpha_i + \beta_{i,4}\Delta I_t + \beta_{i,5}R_{M,t} + \varepsilon_{i,t} \quad (3)$$

While the coefficient of ΔI_t in Equation (1) represents the total effect of an interest rate change, the coefficient of ΔI_t in Equation (3) represents the effect of an interest rate change, holding the market factor constant. Equation (3) therefore attempts to estimate the marginal interest sensitivity of a portfolio. In addition Equation (4) separates the change in nominal interest rate into its real rate and inflation rate components.

$$R_{i,t} = \alpha_i + \beta_{i,6}\Delta RIR_t + \beta_{i,7}\Delta INF_t + \beta_{i,8}R_{M,t} + \varepsilon_{i,t} \quad (4)$$

The fifth follows from Cornell (2000) by including all three Fama and French factors, namely the market factor, $R_{M,t}$ a size mimicking portfolio *SMB* and a book-to-market mimicking portfolio *HML*. The monthly market index return, $R_{M,t}$ is the equal-weighted average of the monthly returns to all sample companies. *SMB* is calculated as the average monthly return on stocks in the two small company portfolios minus the average return on the two large company portfolios.

Similarly, *HML* is the average monthly return on the highest book-to market portfolios (in both the smallest and largest size groups) minus the average return on the lowest book-to-market portfolios.

$$R_{i,t} = \alpha_i + \beta_{i,9}\Delta I_t + \beta_{i,10}R_{M,t} + \beta_{i,11}SMB_t + \beta_{i,12}HML_t + \varepsilon_{i,t} \quad (5)$$

In addition Equation (6) separates the change in nominal interest rate into its real rate and inflation rate components.

$$R_{i,t} = \alpha_i + \beta_{i,13}\Delta RIR_t + \beta_{i,14}\Delta INF_t + \beta_{i,15}R_{M,t} + \beta_{i,16}SMB_t + \beta_{i,17}HML_t + \varepsilon_{i,t} \quad (6)$$

Using the specifications defined in Equations (1), (3) and (5), as well as their variations that separate the real and inflationary components of interest rate changes, regression models for the thirty-two portfolios are estimated.

1.6 Structure of the study

The report consists of five chapters.

This chapter encompasses the background to the study. It outlines the disagreement of the earlier studies, in explaining how and why interest rate changes affect equity values. In Chapter 2 attention is given to the historical development of the duration concept and its application to fixed income securities.

Chapter 3 concentrates on the application of duration to common stocks. It shows how equity duration was traditionally calculated. An alternative approach to estimate equity duration is discussed. This is then followed by attempts to reconcile the resulting equity duration paradox. Special attention is given to the duration of growth companies by taking a closer look at growth opportunities and their option characteristics. The section then discusses previous empirical research that considered growth opportunities as a determinant of equity duration.

Chapter 4 considers the importance of the equity duration of South African growth companies by performing multiple regression analysis on all thirty-two portfolios to determine the relationship between average monthly return, and a set of independent variables.

The implications of the results are discussed outlining the possible contribution of equity duration to investment managers in formulation of strategies with the aim of realizing higher stock market returns and hedging portfolios against interest rate risk. Chapter 5 concludes the report.

CHAPTER 2

2. HISTORICAL DEVELOPMENT OF DURATION

2.1. Duration as a summary statistic of the effective average maturity of a bond portfolio

In 1938, Macaulay developed the concept of duration in his analysis of interest rates and bond prices. Macaulay at that stage was concerned largely with long-term bonds issued by railroads.

Macaulay (1938: 44-45), concluded that:

For a study of the relationship between long and short time interest rates, it would seem highly desirable to have some adequate measure of 'longness'. Let us use the word 'duration' to signify the essence of the time element in a loan It is clear that 'number of years to maturity' is a most inadequate measure of 'duration'. We must remember that the 'maturity' of a loan is the date of the last and final payment only. It tells us nothing about the sizes of any other payments or the dates on which they are to be made Because of its nature, length of time to maturity is not an accurate or even good measure of 'duration'. 'Duration' is a reality of which 'maturity' is only a factor.

To define duration, Macaulay (1938: 46), argued that:

It would seem almost natural to assume that the 'duration' of any loan involving more than one future payment should be some sort of a weighted average of the maturities of the individual loans that correspond to each future payment. Two sets of weights immediately present themselves - the present and the future values of the various individual loans.

Macaulay concluded (on the basis of some hypothetical examples) that "future value weighting seems clearly inadmissible" but "the argument for present value weighting seems strong."

Macaulay recommended that the weight associated with each payment time be related to the "importance" of that payment to the value of the bond. Specifically that the weight applied to each payment time be the proportion of the total value of the bond accounted for by that payment. This proportion is the present value of the payment divided by the bond price (Bodie, Kane and Marcus 1999).

Macaulay's duration is defined as:

$$D = \frac{\frac{C(1)}{(1+i)} + \frac{C(2)}{(1+i)^2} + \frac{C(3)}{(1+i)^3} + \frac{C(4)}{(1+i)^4} + \dots + \frac{(C+F)(n)}{(1+i)^n}}{P} \quad (7)$$

where

C = the interest payment that occurs in period n

P = the principal payment that occurs in period n

P = the sum of the weights, which is precisely the price of the bond, and

i = the yield to maturity on the bond.

Rather than discounting by the individual period discount rates, Macaulay used the yield to maturity, for the sake of simplicity.

As an example of the application of Equation (7) the durations of a 10% coupon and zero-coupon bond, each with three years to maturity are derived in Table 1. The assumption is made that the yield to maturity on each bond is 12%.

Equation (7) is the formula for a bond that pays interest annually. Most bonds pay interest semi-annually. Therefore the formula for Macaulay duration must be adjusted to use a semi-annual rather than annual yield and a semi-annual interest payment. Also the number of periods used, should be double the number of years.

From Table 1, it is clear that the duration of the zero-coupon bond is exactly equal to its time to maturity, three years. This would make sense, because the zero-coupon bond only has one payment at the end, making the average time until payment equal to the bond's maturity. In contrast the three-year coupon bond has a shorter duration of 2.6549 years. It is clear that duration is a better measure of the effective average maturity or "longness" of a bond's payments, than time to maturity.

Table 1. Computation of Macaulay duration

	(1)	(2)	(3)	(4)	(5)
	Time until Payment (years)	Payment	Payment Discounted at 6% Semi-annually	Weight*	Column 1 Multiplied by Column 4
Bond I					
10% coupon	0.5	R 50 000	R 47 170	0.0496	0.02480
	1.0	50 000	44 500	0.0468	0.04680
	1.5	50 000	41 981	0.0441	0.06615
	2.0	50 000	39 605	0.0417	0.08340
	2.5	50 000	37 363	0.0393	0.09825
	3.0	1 050 000	<u>740 209</u>	<u>0.7785</u>	<u>2.33550</u>
Sum			R 950 828	1.0000	2.65490
Bond II					
Zero-coupon	0.5-2.5	R 0	R 0	0	0
	3.0	1 000 000	<u>704 961</u>	<u>1.0</u>	<u>3</u>
Sum			704 961	1.0	3

Source: Adapted from Bodie et al. 1999: 464, Table 16.3.

*Weight = Present value of each payment (column 3) divided by the bond price, R950 828 for bond I and R704 961 for bond II.

In a survey article reviewing the historical development of duration, Bierwag, Kaufman and Toevs (1983: 16) stated that “although Macaulay’s book was widely read, his development of duration was not widely acclaimed. Duration remained to be rediscovered, apparently independently, several times.” According to Bierwag, Kaufman and Khang (1978: 671) duration was not only developed as a more useful indicator of time characteristics of bonds (Macaulay) but also to relate changes in interest rates to changes in the capital value of a particular payment stream, such as bonds.

2.2 Duration as a measure of the interest rate sensitivity of a bond portfolio

Hicks was the first to propose duration as a proxy for interest rate risk. His book “Value and Capital” was published in 1939, a year after Macaulay’s book appeared. Demonstrating how relative asset prices were affected by changes in interest rates, he computed the elasticity of the capital value of an income stream with respect to the interest rate. Hicks called this interest elasticity, which unlike other elasticities had a time dimension, the “average period”. According to Weil (1973: 590) Hicks used his measure “to make concrete the intuitive notion that, when interest rates fall, producers will substitute money (or the capital it can buy) for other means of production and that average period of production plans increases.”

While Macaulay wanted a measure of time, Hicks wanted a measure of elasticity. Hicks notes that although elasticities are ordinarily “pure” numbers, this particular one had dimension; time. In 1966 Fisher, seemingly unaware of Hicks’ work, showed that Macaulay’s measure had the properties of an elasticity (Weil 1973: 590).

Hopewell and Kaufman (1973: 749) stated that although price volatility is related to the time structure of a bond, it is not mathematically related to the term to maturity in any simple way. They considered price volatility to be proportionately related to the duration of a bond. They noted that this relationship is implicit in Macaulay’s work although not rigorously developed. Homer and Leibowitz (1972) identified the three elements comprising the definition of duration (coupon rate, time to maturity and yield to maturity) which affects bond price volatility, but did not state a relationship.

Hopewell and Kaufman (1973: 749) stated the general theorem:

For a given basis point change in market yield, percentage changes in bond prices vary proportionately with duration and are greater, the greater the duration of the bond.

Hopewell and Kaufman showed that the derivative of a bond price with respect to the yield to maturity is proportional to Macaulay’s duration. For a small change in interest rates, the proportional change in a bond’s price can be related to the change in its yield to maturity, i .

The price sensitivity of a bond to a change in yield, i , can be measured by taking the derivative of the bond price to a change in the yield. The price of a bond is given by:

$$P = \frac{C}{(1+i)} + \frac{C}{(1+i)^2} + \frac{C}{(1+i)^3} + \dots + \frac{(C+F)_n}{(1+i)^n} \quad (8)$$

Taking the first derivative of Equation (8) with respect to i and dividing both sides by P , results in:

$$\begin{aligned} \frac{dP}{di} &= -\frac{1C}{(1+i)^2} - \frac{2C}{(1+i)^3} - \frac{3C}{(1+i)^4} - \dots - \frac{n(C+F)_n}{(1+i)^{n+1}} \\ &= -\frac{1}{(1+i)} \left[\frac{C}{(1+i)} + \frac{2C}{(1+i)^2} + \frac{3C}{(1+i)^3} + \dots + \frac{n(C+F)_n}{(1+i)^n} \right] \end{aligned}$$

$$\frac{dP}{di} \frac{1}{P} = -\frac{1}{(1+i)} \left[\frac{\frac{C}{(1+i)} + \frac{2C}{(1+i)^2} + \frac{3C}{(1+i)^3} + \dots + \frac{n(C+F)_n}{(1+i)^n}}{P} \right] \quad (9)$$

The second term on the right hand side of Equation (9) is equal to Macaulay's duration as shown in Equation (7).

Thus:

$$\frac{dP}{di} \frac{1}{P} = -\frac{1}{(1+i)} D \quad (10)$$

Equation (10) can be written as:

$$\frac{dP}{P} = -\frac{1}{(1+i)} D(di) \quad (11)$$

The first two terms on the right-hand side of Equation (11) are commonly combined. This measure is referred to as the modified duration of a bond.

$$\text{Modified duration} = \frac{\text{Macaulay duration}}{(1+i)} \quad (12)$$

Substituting modified duration into Equation (11), and substituting the yield change for di , results in:

$$\% \Delta P = -\text{Modified duration} \times \Delta i \quad (13)$$

Equation (13) shows, that for a given change in the yield, the change in bond price will be relatively greater the longer the duration of the bond. This equation simplifies the mathematics of bond pricing, permitting three widely used rules of bond prices to be collapsed into one.

These rules stipulate that for a given basis point change in interest rates, the relative change in bond price will be greater:

- the lower the coupon rate
- the lower the market yield, and
- the longer the maturity (the relationship may however not hold for deep discount bonds).

Consider for example a bond with Macaulay duration of 10 years and $i = .08$. Assuming the bond's yield to maturity is expected to decline by 50 basis points (e.g., from 8% to 7.5%).

The first step is to compute the bond's modified duration as follows:

$$\begin{aligned} D_{\text{mod}} &= \frac{10}{\left(1 + \frac{.08}{2}\right)} \\ &= \frac{10}{(1.04)} = 9.62 \end{aligned}$$

The estimated percentage change in the price of the bond is as follows:

$$\begin{aligned} \% \Delta P &= -(9.62) \times \frac{-50}{100} \\ &= 4.81 \end{aligned}$$

This indicates, that in response to the 50 basis point decline in yield to maturity, the bond price should increase by approximately 4.81%.

According to Reilly and Sidhu (1980: 64) most investors use the unadjusted duration figure when computing the impact of market rate changes. At high duration figures and reasonable market prices, the difference is relatively small.

Hopewell and Kaufman (1973) theoretically and empirically showed that price movements of option-free bonds would vary proportionally with modified duration for small changes in yields. Because bond price volatility is proportional to the bond's duration, duration becomes a natural measure of interest rate exposure. This relationship is the key to interest rate risk management.

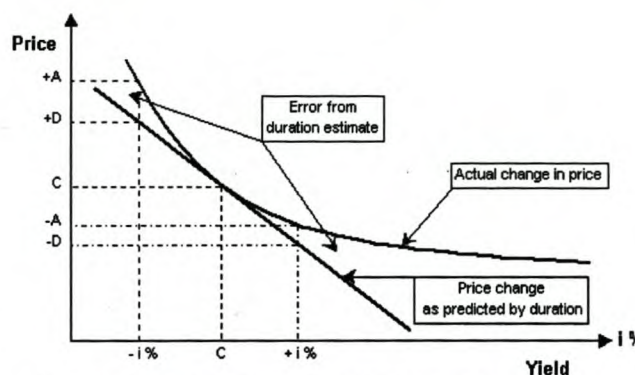
In a more general study of interest rate sensitivity of financial assets Haugen and Wichern (1974) mathematically restated the results of Hopewell and Kaufman (1973) and prove Hicks's proposition that for a given (infinitesimal) change in yield, the percentage change in an asset's value is proportional to its duration.

The success of duration as a measure of the interest rate sensitivity of a bond prompted Hopewell and Kaufman (1973: 752) to suggest that "it may be more useful to derive yield curves with respect to duration rather than maturity"

Modified duration provides an exact estimate of percentage price change only for very small changes in yields of option-free securities. The accuracy of estimating price changes deteriorates with larger changes in yields because the modified duration calculation is a linear approximation of a bond price change that follows a curvilinear (convex) function. When dealing with large yield changes, the convexity effect on price changes must also be considered.

Whereas duration is the first derivative of change in value in relation to a change in interest rates, convexity is the second derivative and is a measure of the degree to which the present value/yield slope curves. The error between the actual value (+A and -A) in Figure 1, and the value predicted by duration (+D and -D) is due to the convex nature of the relationship between value/price and the interest rate.

Figure 1.: The price-yield relationship with modified duration



Source: Reilly & Brown 2000: 590, Figure 16.9.

When interpreting duration and convexity, Dunetz and Mahooney (1988: 58) stated that “duration is the primary measure of exposure to market rate risk.” Convexity only becomes important when comparing bond portfolios or positions of the same or similar duration. Positive convexity implies that price increases at a faster rate as yields drop than prices decrease as rates rise. Convexity has a substantial effect only for large changes in rates. Convexity is therefore more desirable when interest rate volatility is perceived as being high by the market. Taking both duration and convexity into consideration for bonds allows for a more accurate estimation of the change in price for any change in yield.

Macaulay and modified duration measures have certain limitations. These measures cannot be used:

- for large-yield changes
- for assets with embedded options, or
- for assets that are affected by variables other than interest rates, such as common stocks or real estate.

Because of Macaulay and modified duration’s limitations, practitioners developed a way to approximate the duration of a bond or any security that will be affected by interest rate changes. This is referred to as effective duration, a direct measure of the interest rate sensitivity of any asset where it is possible to use a pricing model to estimate the market prices surrounding a change in interest rates. Specifically, effective duration measures the interest rate sensitivity of a bond taking into consideration that the cash flows of the bond can change when yields change due to the existence of embedded options.

To implement effective duration, it is necessary to use an interest rate model and corresponding valuation model that provide price estimates for the asset when interest rates and cash flows change. The equation use to calculate effective duration is given by:

$$D_{effective} = \frac{(V_-) - (V_+)}{2VS} \quad (14)$$

where

V_- = estimated value of the asset after a downward shift in interest rates

V_+ = estimated value of the asset after an upward shift in interest rates

V = current value of the asset (before any interest rate shifts)

S = assumed shift in the term structure

When V_- and V_+ are the values produced from the corresponding valuation model, the resulting duration takes into account both the discounting at different interest rates and how the expected cash flows may change.

A problem arises when estimating interest rate sensitivity for certain asset classes where it is not possible to generate well-specified market value estimates in response to yield changes. A good example of such an asset class would be common stocks.

To be able to estimate interest rate sensitivity under such circumstances, empirical duration is used. Empirical duration is the actual percentage change in price for an asset in response to a change in the yield during a specified period of time.

Mathematically stated:

$$-\frac{\% \Delta P}{\Delta i}$$

gives the empirical duration of a stock or portfolio.

Therefore if a change in interest rate (Δi) and the change in the price of an asset is observed during the same period of time, the empirical duration of that asset can be solved. This is a direct measure of the stock's interest rate sensitivity and should be thought of as an approximate percentage change and not as a measure of time.

2.3 Duration as an essential tool in immunizing bonds from interest rate risk

In 1945, Samuelson in analyzing the effects of interest rate changes on the capital values of financial institutions (i.e. insurance companies, banks, universities) effectively derived Equation (7). In the process of examining the impact of increases in interest rates on these institutions he computed the first derivatives of the values of the inflows and outflows with respect to the yield to maturity. By doing this, Samuelson got the right hand side of Macaulay's duration equation. According to Weil (1973: 590) Samuelson stated that he was unaware of Macaulay's duration concept at the time.

Samuelson (1945: 19) indicated that:

Increased interest rates will help any organization whose (weighted) average time period of disbursements is greater than the average time period of its receipts.

In effect, Samuelson proved that if the duration of an institution's assets is larger (smaller) than that of its liabilities, then the institution will lose (profit) when interest rates rise and profit (lose) when interest rates fall.

In 1952, Redington a British Actuary used a similar approach than Samuelson. He attempted to find out what allocation of assets and liabilities would minimize a life insurance company's possibility of losses from unexpected interest rate changes. In order to do this Redington computed first derivatives of the values of inflows and outflows with respect to interest rates. He, like Samuelson, appeared to be unaware of the work of his predecessors.

Redington (1952: 289) called his statistic the "mean term" (which is the same as duration), and coined the term "immunization". He used this word, "to signify the investment of the assets in such a way that the existing business is immune to a general change in the rate of interest." Redington (1952: 290) stated that in order to have "a satisfactory immunization policy ... the mean term of the value of the asset-proceeds must equal the mean term of the value of the liability-outgo." Redington proved that the net worth of a life insurance company could not be reduced to any small change in interest rates provided that the "mean term" of assets equaled the "mean term" of liabilities.

Fisher and Weil (1971) extended Redington's immunization theorem, by developing an optimal strategy for bond investments. They showed how investors could construct a portfolio of default-free coupon bonds, which will realize a return equal to the promised yield to maturity at the beginning of the holding period, regardless of the interest rate changes during that period. This is achieved by selecting a bond portfolio whose duration is equal to the holding period of the investor.

Fisher and Weil (1971: 415) specified immunization as follows:

A portfolio of investments in bonds is *immunized* for a holding period if its value at the end of the holding period, regardless of the course of interest rates during the holding period, must be at least as large as it would have been had the interest-rate function been constant throughout the holding period. If the realized return on an investment in bonds is sure to be at least as large as the appropriately computed yield to the horizon, then that investment is immunized.

One of the major problems facing bond portfolio management, is to derive a given rate of return to satisfy an ending wealth requirement at a specific future date. Only if the term structure of interest rates were flat and market rates never changed during the time of purchase and the horizon date when funds were required, it would be possible to acquire a bond with a term to maturity equal to the desired investment horizon. The ending wealth from the bond would then equal the promised wealth position as implied by the promised yield to maturity.

For example, acquiring an 8-year, \$1 million bond with 6% percent coupon at its par value (6 percent yield to maturity), your wealth position at the end of the 8-year investment horizon (assuming semiannual compounding) would be:

$$\$1\,000\,000 \times (1,03)^{16} = \$1\,604\,706.$$

With the structure of interest rates typically not flat and the level of interest rates constantly changing the chances are very small that a bond with a term to maturity equal to the desired investment horizon will have an ending wealth equal to the promised wealth position. As a result one might expect that the realized return would differ from the promised yield.

Fisher and Weil (1971) tested this and found a significant difference between the promised yields and the realized returns on long-term bonds covering the period December 1925 – December 1968.

Fisher and Weil (1971) showed that it is possible to immunize a bond portfolio if the assumption can be made that if forward interest rate change, all rates will change by the same amount. This can be done if the duration of the portfolio is always equal to the desired investment horizon. For example, if the investment horizon of a bond portfolio is 8 years, the duration of the bond portfolio should equal 8 years to immunize the portfolio.

If no security has a duration of eight years, then a combination of securities should be bought so that its duration is eight years. Then, when the next coupon payment are received there payment should be reinvested in bonds of appropriate duration so that the duration of the whole portfolio is then seven years. The holding period gets progressively shorter as does the duration of the portfolio, but the rates of decrease need to be identical.

In contrast to the duration strategy if you want cash ten years from now, one buys bonds with a term to maturity of ten years and reinvest all proceeds in that same bond. This strategy is called the maturity strategy. The strategy suggested by the theorem on immunization is called the duration strategy.

Fisher and Weil test their duration strategy empirically by comparing how well it immunizes relative to a maturity strategy where the portfolio's maturity was equal to the investment horizon. By using Durand's (1957) interest rate data, they found that the duration strategy out-performed the maturity strategy about 75% of the time for a variety of planning period lengths.

Fisher and Weil (1971: 423) concluded that a "properly chosen portfolio of long-term bonds is essentially riskless." Thus, risky assets can through the use of immunization be effectively converted into a riskless asset with a known yield for any given holding period.

Subsequent to the development and application of classical immunization, Leibowitz and Weinberger (1982) developed a portfolio strategy called contingent immunization. This strategy allows for an investment manager to pursue the highest returns available through active strategies, while relying on classical bond immunization techniques to ensure a given minimal return over the investment horizon.

Contingent immunization requires that the investor be willing to accept a potential return below that of the current market return. This difference between the current market return and some floor rate is referred to as a cushion spread. This provides flexibility for the investment manager to engage in active portfolio strategies (Reilly and Brown, 1997: 618).

Assume for example that an investor initiated a fund with \$100 million. If current market rates are 10 percent but the investor is willing to accept a floor rate of 9 percent over the next 10 years, the investment manager does not have the same ending wealth requirements.

At 9 percent the required ending wealth value would be:

$$\$100\,000\,000 (1.045)^{20} = \$241\,171\,402$$

compared to

$$\$100\,000\,000 (1.05)^{20} = \$265\,329\,771 \text{ at } 10 \text{ percent.}$$

Notably, assuming market rates of 10 percent, the required value of assets at the beginning would be:

$$\frac{241\,171\,402}{(1.05)^{20}} = \$90\,894\,965, \text{ which is the present value of } \$241\,171\,402 \text{ at } 10 \text{ percent for } 10 \text{ years.}$$

The difference between the \$100 000 000 and the \$90 894 965 is the dollar cushion available to the investment manager. The investment manager can therefore engage in various active investment strategies to increase the ending wealth of the portfolio above that of 9 percent required by the investor. Say for example he believes that market rates will drop, the investment manager might consider acquiring a 30 year bond that has a duration greater than the investment horizon of 10 years and, therefore has greater price sensitivity to changes in interest rates.

If such a decline materialize the value of the long duration portfolio will increase above the initial value creating a safety margin. In contrast, should rates increase, the value of the portfolio would decline. When it reach the point of minimum return in this case the asset value required at 9 percent, it is necessary to stop active investment management and use classical immunization in order to ensure that the desired ending wealth value be obtained.

Since the work of Fisher and Weil in 1971, several new papers have addressed the problem of immunization using measures of duration different from Macaulay's. Bierwag and Kaufman (1977) for example, approached immunization assuming that changes in the term structure of interest rates occur in a multiplicative fashion rather than additively. When conceiving an additive shock to interest rates all interest rates are changed by the same nominal amount, for example 25 basis points. In the case of a multiplicative shock, all interest rates change by the same percentage, for example 5 percent.

Bierwag and Kaufman (1977) contended that the optimal definition of duration for perfect immunization of a portfolio will depend upon the nature of the shock to the interest rate structure. Macaulay's duration measure discounts all flows by the prevailing yield to maturity on the bond being measured. While Fisher and Weil's definition used future one-period interest rates (forward rates) to discount the future flows.

Bierwag and Kaufman (1977: 65) argued that in the case of a additive shock the Fisher-Weil definition would be best, but that a multiplicative shock requires a third measure of duration. They computed these alternative measures of duration and found that, "except at high coupons and long maturities, the values of the [alternative duration] definitions do not vary greatly.

2.4 Interpretations of duration

Market participants often confuse the main purpose of duration by constantly referring to it as some measure of the weighted average life of a bond. This is because of the original use of duration by Macaulay. In fact the most relevant definition for managers or investors attempting to use duration is: the approximate percentage change in price for a 100 basis point change in rates.

Sometimes market participants refer to duration as the “first derivative”. When market participants say that duration is the first derivative they mean that if it were possible to write a mathematical equation for a bond in closed form, the first derivative would be the result of differentiating that equation the first time. Without an intuitive understanding of what a first derivative is, it does not help with the understanding of what the interest rate risk of a bond is (Fabozzi, 2000).

It should not matter if it is technically correct to think of duration in terms of years or in terms of first derivatives. Users of this interest rate risk measure are interested in what it tells them about the price sensitivity of an asset (or a portfolio) to changes in interest rates.

2.5 Summary

This chapter focussed on the historical development of the duration concept. It acknowledged the work of Macaulay (1938) who developed the concept in his analysis of interest rates and bond prices. He showed duration to be a better measure of the effective average time “longness” of a bonds payment, than time to maturity.

Clearly the duration concept was not only developed to serve as a more useful indicator of time characteristics of bonds. More importantly, duration is used as a measure of interest rate sensitivity of bonds. Hopewell and Kaufman (1973) considered price volatility to be proportionately related to Macaulay’s duration. They derived an adjusted measure of Macaulay’s duration which is called modified duration. Modified duration can be used to measure the approximate interest rate sensitivity of non-callable bonds.

In reaction to Macaulay’s and modified duration’s limitations, practitioners developed a way to approximate the duration of a bond or any security that will be affected by interest rate changes. This is referred to as effective duration, which measures the interest rate sensitivity of a bond taking into consideration that the cash flows of the bond may change when yields change as a result of existing embedded options.

To be able to estimate interest rate sensitivity under circumstances where it is not possible to generate well-specified market value estimates in response to yield changes (for example common stocks) empirical duration can be used. Empirical duration is the actual percentage change in price for an asset in response to a change in the yield during a specified period of time.

The third use of duration is that of a tool to immunize bonds from interest rate risk. Fisher and Weil (1971) extended Redington's immunization theorem, arguing for the use of a duration strategy rather than a maturity strategy, to effectively convert a risky asset into a riskless asset with a known yield for any given holding period. They empirically tested how well their duration strategy immunized relative to a maturity strategy. They found that the duration strategy out-performed the maturity strategy about 75% of the time, making duration an essential tool in immunizing bonds from interest rate risk.

In the case of immunization, the use of any specific duration measure implies that the investment manager is capable of forecasting the type of interest rate shock. This follows from Bierwag and Kaufman's (1977) work, which contended that the optimal definition of duration for perfect immunization of a portfolio will depend upon the nature of the shock to the interest rate structure.

This chapter focused on the historical development of duration and its appropriate uses in fixed income security analysis. Before moving on to the next chapter the reader should take note of the fact that although it is technically correct to think of duration in terms of years, the main use of duration is as a measure of interest rate sensitivity. Since the main objective of this study is to provide insight into the interest rate sensitivity of South African growth companies, equity duration is used for its ability to measure the interest rate sensitivity of common stock.

The next chapter considers how duration can be applied to equity securities. This is critical in analyzing the interest rate sensitivity of growth companies.

CHAPTER 3

3. APPLYING DURATION TO EQUITY SECURITIES

Although most researchers and practitioners applied the duration concept to fixed income securities, duration can also be applied to common stocks.

The traditional use of duration as a measure of average life is not relevant for equities. This is because common stock is considered to have perpetual life's, unlike bonds, which have fixed maturity dates. There is, however, a growing usage of the second interpretation of duration, where equity duration is viewed as a measure of the interest rate sensitivity of common stocks' market value.

When considering the applicability of duration to equity securities, equity valuation provides a framework to evaluate duration. Therefore it is necessary to focus on the different valuation approaches available, from which equity duration can be derived. Deriving equity duration from these valuation models can give the reader some insight into the interest rate sensitivity of growth companies.

3.1 Approaches to equity valuation

Equity valuation, like bond valuation, provides a framework for assessing duration. Miller and Modigliani (1961: 415) identified the following approaches to the valuation of shares found in the literature:

- discounted cash flow approach
- current earning plus future investment opportunities approach
- stream of dividends approach, and
- stream of earnings approach

In the first two approaches share valuation is tackled from the asset side of the balance sheet. The last two approaches look at valuation from an equity or shareholder viewpoint.

Miller and Modigliani (1961) showed that under conditions of perfect capital markets, given perfect certainty and assuming rational behaviour, the value of equity would be equivalent in all essential respects regardless of the approach used.

When turning to the stream of dividends approach they declare that this approach “has been by far the most popular one in the literature of valuation” (Miller and Modigliani 1961: 418).

The “stream of dividends approach” forms part of the discounted cash flow valuation techniques where the value of the stock is estimated based upon the present value of some measure of cash flow, in this case the dividends.

These valuation techniques are all based on the basic valuation model. This valuation model asserts that the value of an asset is the present value of its expected future cash flows as follows:

$$P = \sum_{t=1}^{\infty} \frac{CF_t}{(1+k)^t} \quad (15)$$

where

P = value of an asset

CF = cash flow in period t

k = the discount rate that is equal to the investors required rate of return for the asset which is determined by the uncertainty of the asset's cash flows.

John B. Williams (1938: 56) applied this valuation model to common stocks, as shown in Equation (16):

$$P = \frac{d_1}{(1+k)^1} + \frac{d_2}{(1+k)^2} + \frac{d_3}{(1+k)^3} + \dots + \frac{d_{\infty}}{(1+k)^{\infty}}$$

$$= \sum_{t=1}^{\infty} \frac{d_t}{(1+k)^t} \quad (16)$$

where

P = value of common stock

d_t = per share dividend expected at the end of year t , and

k = discount rate for common stock

This model is known as the Dividend Discount Model (DDM).

The simplest approach to dividend valuation is the zero-growth model. This model assumes a constant, non-growing dividend stream ($d_1 = d_2 = \dots d_\infty$). Letting d_1 represent the annual dividend, Equation (16) reduce to:

$$P = d_1 \sum_{t=1}^{\infty} \frac{1}{(1+k)^t} = d_1 \frac{1}{k} = \frac{d_1}{k} \quad (17)$$

Equation (17) shows (with zero growth), the value of equity would equal the present value of a perpetuity of d_1 rands discounted at a rate k .

An alternative to assuming zero growth, is to assume a constant growth in perpetuity. Gordon (1962) did this, resulting in the most widely cited dividend valuation approach, namely the constant-growth model. This model is commonly called the Gordon model.

Equation (16) as it stands requires dividend forecasts for every year into the indefinite future. By assuming that dividends are trending upward at a stable growth rate g , Equation (16) can be simplified to:

$$P = \frac{d_0(1+g)^1}{(1+k)^1} + \frac{d_0(1+g)^2}{(1+k)^2} + \dots + \frac{d_0(1+g)^\infty}{(1+k)^\infty} \quad (18)$$

where

P = value of stock

d_0 = dividend payment in the current period

k = discount rate, and

g = constant growth rate of dividends

Equation (18) can be simplified to:

$$P = \frac{d_1}{k - g} \quad (19)$$

(See, for instance, Bodie et al., 1999: 535)

A necessary mathematical condition for deriving this model is that dividends will grow at a constant rate, g that is less than the required return, k . If dividends were expected to grow forever at a rate faster than k , the value of the stock would be infinite.

This model is most suitable for estimating the value of stable, mature companies. Companies in such industries as electric and telephone utility, beverage, food processing, retailing, banking and life insurance industries (Farell, 1985: 17). For such companies, earnings patterns as well as retention rates and returns on investment are fairly stable over time.

Substantial modification of the basic dividend discount model is needed to deal with companies that have a highly cyclical operating pattern or exceptionally high rates of earnings growth. Because the zero- and constant-growth models do not allow for any shift in expected growth rates, it is useful to consider multistage models.

Companies typically pass through life cycles with very different dividend profiles in different phases. Early years often see ample opportunities for profitable reinvestment resulting in low payout ratios and rapid growth. In later years attractive opportunities may become harder to find. In this mature phase, the company may choose to increase its dividend payout ratio, rather than to retain earnings. Dividend levels increase, but thereafter grow at a slower rate because of fewer growth opportunities. Special attention will be given to these growth opportunities as a determinant of equity duration at a later stage.

A modified DDM model is needed to evaluate companies with temporary supernormal growth. These models assume that there are two or more growth rates that apply to a company's future. A two-phase model for example has one near-term growth estimate (usually between two and ten years), followed by a long-term growth estimate. More elaborate models further refine earnings growth patterns into more growth segments.

These models provide a framework for comparing high-profit, high-growth companies with low-profit, low growth companies. For a further discussion of these multistage models see for example Bodie et al. (1999: 540).

3.2 Analyses of equity duration

The difficulties in computing equity duration, as a measure of interest rate sensitivity, arise because of the several unknowns involved in the cash flows and discount rate. The cash flows are uncertain. The discount rate used should be the prevailing required rate of return on the security, which in the case of equities is an estimate based on other estimates in the equity valuation model (Reilly and Sidhu, 1980: 69).

The relationship between interest rates and equity prices is neither direct nor consistent. The reason for this is that unlike fixed income securities, the cash flows from equities can change along with interest rates.

The following model describes the factors causing interest rates k , to change:

$$k = \{(1 + RFR)(1 + INF)(1 + h) - 1\}$$

where

RFR = real risk-free rate of interest

INF = expected rate of inflation, and

h = risk premium.

The real risk-free rate is the economic cost of money, that is, the opportunity cost necessary to compensate individuals for forgoing consumption. It is determined by the real growth rate of the economy with short-run effects due to ease or tightness on interest rates. It is the basic interest rate, assuming no inflation and no uncertainty about future flows (Reilly and Brown 1997: 546).

Inflation is the rate at which the general level of prices are rising. Unexpected changes in the inflation rate make it difficult for companies to plan and thus hinder growth and innovation. It was Irving Fisher who argued that the nominal rate of interest should be equal to the real rate plus the market's expected inflation rate (Gordon and Halpern, 1976: 559).

Most investors require higher rates of return on investments to compensate for any uncertainty. This increase in the required rate of return over the nominal rate is the risk premium. Although the risk premium represents a composite of all uncertainty, it is possible to consider several fundamental sources. This includes for instance business risk, financial risk, liquidity risk, exchange rate risk, and country risk. The risk premiums change with shifts in investors' perceptions of risk and their tolerance of it (Reilly and Brown 1997: 448).

Estimating the future behaviour of such variables as real growth, expected inflation, and economic uncertainty is a difficult task. In the light of the above, interest rates like stock prices, are extremely difficult to forecast with any degree of accuracy.

3.2.1 Traditional measure of equity duration

Analyses of equity duration have often begun with the stream of dividends valuation approach through the dividend discount model (DDM).

Boquist et al. (1975: 1363) derived the formula to compute the duration for common stocks through employing the DDM model. They considered a perpetual growth stock (where the dividend d_t are expected to grow at a constant rate g).

The expression for the duration of a stock with such anticipated constant growth in dividends and with the dividend in period t , d_t , equal to $d_0(1+g)^t$ is:

$$D = \frac{d_0 \sum_{t=1}^{\infty} t(1+g)^t / (1+k)^t}{d_0 \sum_{t=1}^{\infty} (1+g)^t / (1+k)^t} = \frac{\sum_{t=1}^{\infty} t(1+g)^t / (1+k)^t}{\sum_{t=1}^{\infty} (1+g)^t / (1+k)^t} \quad (20)$$

Boquist (1975: 1363) noted that as long as $k > g$, both the numerator and denominator are convergent, and they can be shown equal to:

$$\frac{(1+g)(1+k)}{(k-g)^2} \quad \text{and} \quad \frac{(1+g)}{k-g} \quad \text{respectively.}$$

Therefore, Equation (20) becomes:

$$D_{Macaulay} = \frac{1+k}{k-g} \quad (21)$$

Equation (21) shows the Macaulay duration for an equity security priced consistently with the constant growth model. A more recent measure of duration, called modified duration, is measured as Macaulay duration divided by one plus the discount rate [as discussed in Chapter 2]. For equity securities dividing Equation (21) by $(1+k)$, results in a modified duration measure of:

$$D_{Modified} = \frac{1}{k-g} \quad (22)$$

Leibowitz et al. (1989: 31) used Equation (19) to model the elasticity of value with respect to changes in the discount rate. They evaluated DDM duration by: “taking the derivative of the natural logarithm of P with respect to the discount rate”. Taking the natural logarithm of Equation (19) results in the following:

$$\ln P = \ln d_1 - \ln(k - g)$$

Taking the first derivative with respect to the discount rate lead to:

$$\frac{\partial \ln P}{\partial k} = -\frac{1}{k-g}$$

As stated above

$$D_{DDM} = -\frac{\partial \ln P}{\partial k} = -\left(\frac{-1}{k-g}\right) = \frac{1}{k-g} \quad \text{Leibowitz et al. (1989), Equation (4)]} \quad (23)$$

For a zero-growth stock, the formula for calculating duration, is simply:

$$D = \frac{1}{k} \quad (24)$$

It is clear from Equation (22) that duration is determined by the spread between k and g . The larger the spread, the lower the duration. Therefore an increase in the growth rate, absent other changes, will increase the duration of a stock.

A comparison of Equation (22) and (24) indicates that because $(k-g) < k$, duration of Equation (22) is greater than the duration of Equation (24) in magnitude. In other words, the duration of the growth company is higher than the duration of the zero-growth company.

Starting with Equation (22), Williams and Pfeifer (1982: 402) demonstrated that the duration for a constant growth asset might also be expressed as:

$$D = \frac{1}{\text{dividend yield}} \quad (25)$$

Note that the denominator of Equation (22) has the same form as that of the constant growth model given in Equation (19). By rearranging the dividend discount model, it is shown that:

$$\frac{P}{d} = \frac{1}{k-g}$$

thus

$$D = \frac{P}{d}$$

P/d , the price/dividend ratio, is the reciprocal of the dividend yield. Thus duration is simply the inverse of the dividend yield as shown in Equation (25). This equation produces a ready method for computing duration of any stock that is priced according to the constant growth model.

Equation (25) indicates that companies with low dividend yields will have longer durations than companies with high dividend yields and are relatively more sensitive to discount rate changes. High-growth companies, which are generally characterized with low dividend yields, would be more subject to this risk than low growth companies. Williams (1982: 402) noted that “The relationship between growth and duration is positive; duration increases as g increase.”

Casabona et al. (1984) and Gould & Sorensen (1986), using traditional discounted cash flow (DCF) techniques, predicted that growth companies will have higher durations (more sensitive to changes in interest rate levels) than non-growth companies. The reason for this is that the absolute magnitude of distant cash flows is larger relative to current cash flows for growth companies.

Farell (1985: 23) argued that, because the duration measure for equities is similar to the duration measure for bonds, their durations can be compared to determine their relative sensitivities to interest rate changes.

In summary, when duration is derived from the DDM model it is observed that stocks with higher dividend growth, have higher duration than stocks with lower dividend growth. Thus the DDM approach implies a positive relationship between duration and growth. High growth companies will have higher equity duration than low growth companies. The same conclusion can be reached from the DCF approach. As distant cash flows are larger relative to current cash flows for high growth companies, they are more sensitive to changes in interest rates than low growth companies.

Analysis of equity duration can be complemented, by examining an alternative approach in which equity duration is calculated empirically.

3.2.2 An alternative approach to estimate equity duration

Leibowitz (1986) identified an alternative approach to estimate equity duration empirically. His work focused on the construction of an equity duration measure, for use in asset and liability management in pension funds. The pension industry stood to benefit from a more intuitive theoretical approach within which to match specific contractual liabilities against the overall duration of a multi-asset class portfolio. It has been shown that the standard DDM provides very long duration estimates for common stocks. Practitioners have criticized the DDM's unrealistic treatment of the observed pricing elasticity of equities with respect to changing discount rates. The traditional DDM duration are criticized for ignoring all links between the discount rate and the growth rate. Without a general formula for equity duration, assets available for portfolio dedication are limited to fixed income securities.

Leibowitz (1986: 20) noted that:

Clearly, it would be helpful to be able to extend the immunization principle to a portfolio containing both stocks and bonds To do this, one needs to identify some technique for estimating the interest rate sensitivity of an equity portfolio.

The method he used does not depend on any specific valuation model (such as the dividend discount model) for stock market behaviour; it relies only on statistical measures used in every day asset allocation procedures. Leibowitz estimated interest rate sensitivity of a stock portfolio from a measure of the correlation between stocks and bonds. He showed how this correlation in conjunction with a measure of bond market duration could be used to develop an estimated duration value for equities.

Given estimated *ex ante* values for the variance of stock market returns, the variance of bond market returns and the correlation between the two, a duration like measure, for the stock market as a whole, or for a specific stock portfolio can be derived.

Equation (26) gives the estimated duration D_E for the equity market:

$$D_E = \left(\frac{\sigma_E}{\sigma_B} \right) \rho(E, B) D_B, \quad [\text{Leibowitz (1986: 21), Equation (1)}]. \quad (26)$$

where

D_E = estimated duration for the equity market

D_B = duration of a broad based measure of the bond market

σ_B = standard deviation of the bond market returns

σ_E = standard deviation of the equity market returns, and

$\rho(E,B)$ = correlation between the equity and bond market returns

Leibowitz (1986: 22) admitted that this stock market duration value, D_E is a statistically derived concept, which is subject to uncertainty. However, it can be used to relate stock market returns, R_E to changes in long-term interest rates as follows:

$$R_E = A - D_E \tilde{\delta} + \tilde{\epsilon}, \quad [\text{Leibowitz (1986: 22), Equation (2)}] \quad (27)$$

where

A = the constant term

$\tilde{\delta}$ = movement in long-term interest rates

$\tilde{\epsilon}$ = stock market movement attributable to “all other market forces”

(See, Leibowitz 1986: 28, for the complete derivation of his model.)

The resulting stock market durations are empirical estimates of actual stock price sensitivity to underlying changes in interest rates.

Leibowitz (1986: 23) showed how in combination with the typical portfolio allocation decision between equities and bonds, the beta value of any equity portfolio could be used to obtain a total portfolio duration measure to assist in asset and liability matching.

The total portfolio duration, D_{TP} is given by Equation (28):

$$D_{TP} = W_{BP} D_{BP} + W_{EP} \beta_{EP} D_E, \quad [\text{Leibowitz (1986: 23), Equation (3)}] \quad (28)$$

where

W_{BP} = weight allocated to bonds

W_{EP} = weight allocated to equities

D_{BP} = duration of bond component, and

β_{EP} = beta value of equity portfolio

In an example Leibowitz (1986) took the cumulative return series for the S&P 500 as a proxy for the broad stock market, and the Saloman Brothers Broad Investment-Grade Index as the bond market over the period January 1980 through November 1985. For this period stock-bond correlations averaged +0.34. This value suggest that a significant relation does exist between equity and bond market returns. The average standard deviation for the S&P 500 was 14.2% over the period, while the Salomon Brothers Broad Index had a standard deviation of 9.5%.

Leibowitz next examined the behaviour of the bond returns to changes in the benchmark yield. Plotting the Salomon Brothers Broad Index returns against changes in 10-year Treasury yields resulted in correlation of -0.98. Determining the effective duration for the bond market relative to 10-year Treasury yields from this diagram turned out to be 4.27.

Substituting these values into Equation (26) results in an equity market duration of

$$D_E = \left(\frac{0.142}{0.095} \right) (0.34)(4.27) \\ = 2.12$$

Leibowitz (1987: 31), after further empirical research, concluded that

It takes a rare combination of high correlation and high equity-bond volatility ratio to achieve equity durations as high as six years The plain fact is that equity portfolios have low empirical durations in terms of return sensitivity to nominal interest rate movements.

To summarize, the empirical estimates of actual stock price sensitivity to underlying changes in interest rates imply that equities behave as if they are much shorter duration instruments.

Clearly Leibowitz's findings contradict preconceptions of prior work addressing the question of stock durations. Basing theoretical stock prices on a standard dividend discount model results in durations for equities, in the order of 10 years (for income stocks such as utilities) to 25 years and more (for growth companies whose cash flows are not expected to materialize until some future period). These durations are grossly inconsistent with empirical observed behaviour of equities. Leibowitz et al. (1989: 35) coined the term equity duration "paradox" to signify the difference between empirical duration and duration estimates derived from the DDM approach.

The next section will consider the various attempts to resolve the difference between Leibowitz's empirical duration and the traditional approach.

3.3 Reconciling the Leibowitz approach to equity duration, with the DDM alternative

Several attempts have been made to resolve the difference between Leibowitz's empirical duration and the traditional measures of equity duration.

Johnson (1989: 74) emphasized that the difference between Leibowitz's approach and the traditional DDM approach arose, in part, because they do not measure the same sensitivity. Leibowitz relates equity return to movements in long term interest rates (return sensitivity) while in the DDM approach duration is estimated from the price sensitivity of an asset.

Johnson (1989) furthermore argued that the combination of Equation (29) (which express the co-movement of equity market returns, R_E with bond market returns, R_B) with Equation (30) (which express bond market returns as a linear function of $\tilde{\delta}$, the change in a benchmark long-term yield)

$$\tilde{R}_E - R_F = A_1 + B(\tilde{R}_B - R_F) + \tilde{e}_1, \quad [\text{Leibowitz (1986: 28), Equation (A1)}] \quad (29)$$

$$\tilde{R}_B - R_F = A_2 - D_B \tilde{\delta} + \tilde{e}_2, \quad [\text{Leibowitz (1986: 28), Equation (A4)}] \quad (30)$$

results in Equation (31), which shows the relationship between equity returns and yield changes.

$$\tilde{R}_E - R_F = A_3 - D_E \delta + \tilde{e}_3, \quad [\text{Leibowitz (1986: 28), Equation (A6)}] \quad (31)$$

where

$$D_E = D_B B$$

Equation (31) will give biased estimates of equity returns to changes in interest rates. This is because of the presence of B (the regression coefficient reflecting the sensitivity of market returns to bond returns), in both the composite constant term and in the slope coefficient, D_E . This multi-colinearity will bias the estimate of D_E downwards, because part of the explanatory power of the slope coefficient is embedded in the constant term.

Leibowitz et al. (1989), expanded the analysis by distinguishing between real and inflationary components of nominal interest rates.

The traditional DDM duration formulation, is criticized by Leibowitz et al. (1989) as being overly simplistic. It assumes that the future growth estimate in dividends (or earnings), g , is unrelated to changes in the discount rate, k . In reality, factors affecting the dividend growth rate will also affect the discount rate. When inflation rises, it would be expected that the discount rate would increase. But dividend growth g , may also respond to inflation dampening duration. Leibowitz et al. (1989: 32) compared the history of S&P 500 dividend growth with the history of inflation as measured by the Consumer Price Index (CPI) over a 27-year period. From their study it was apparent that the dividends did not grow at a constant rate from year to year, but that there were in fact a great deal of variability. This tendency of the growth rate to fluctuate, implies that Equation (23) is not a realistic reflection of stock price response to interest rate change, as it assumes a constant growth rate for future dividends.

Leibowitz et al. (1989: 32) assumed that real interest rates and inflation rates are the underlying variables that “relate changes in the interest rate and the equity risk premium to equity duration.” They argued that equity values could react differently to each of these variables because of their differing effects on earnings growth rates.

Leibowitz et al. (1989) reformulated the DDM to obtain a total differential of the price function as follows:

$$\frac{dP}{P} = -D_{DDM} \left(1 - \gamma + \frac{\partial h}{\partial r} \right) dr - D_{DDM} \left(1 - \lambda + \frac{\partial h}{\partial I} \right) dI, [\text{Leibowitz et al. (1989: 33), Equation (8)}] \quad (32)$$

where

h = equity market risk premium

I = inflation component of nominal rates

r = real component of nominal rates

γ = growth rate sensitivity to real interest rates, and

λ = inflation flow-through parameter

The growth function, g , is a modification of the constant-growth model. The growth variability consists of two components. The parameter λ is used to capture the inflation flow-through, which is the effect of inflation on the growth in corporate profits. The parameter γ , on the other hand, measures the sensitivity of corporate profit growth rates to changes in real interest rates.

(See Leibowitz et al. (1989: 37) for the full derivation of this model.

Equation (32) states that price sensitivity is directly related to the DDM model. The higher the DDM duration, the higher the sensitivity of an equity to interest rate change. Furthermore an investor should think of equity duration not only as it relates to nominal changes in interest rates, but also as it relates to real changes in interest rates.

The left-hand term of Equation (32) says that, companies that are adversely affected by increases in real interest rates, will have accentuated interest rate sensitivity. The right-hand term says that, companies with high levels of inflation flow-through may have very low interest rate sensitivities.

The effect of interest rate changes on stock prices will depend on what caused the change in interest rates and the effects of this event on the cash flows of common equity. In the case of an increase in either real rates or inflation, prices of securities such as bonds whose cash flows are fixed, will decline. Bonds and other fixed-income securities such as preferred stocks are thus highly vulnerable to both accelerating inflation and rising real rates. Because an unanticipated decrease in the inflation rate results in price increases for bonds, they are highly desirable investments during periods of deflation.

The cash flows (dividends) of common stocks are not fixed like bonds however, and the price of the security does not necessarily change in response to inflation. Common stocks can however demonstrate great sensitivity to changes in real rates.

The reason why equity prices might be fairly stable is because the negative effect of an increase in the required rate of return is partially or wholly offset by the increase in the growth rate of earnings and dividends. This happens when corporate earnings increase with inflation as a result of the companies' ability to raise prices in line with cost increases. Thus the sensitivity of equity prices to inflation movements will tend to be far lower than the traditional DDM duration suggests.

Where the cash flows change very little due to a company's inability to increase prices in response to higher costs, the equity prices would be effected negatively. The reason for this is that the discount rate increases more than the growth rate and dividend level, which results in the application of a net higher discount rate. Where there is complete inability to increase growth in the face of inflation, the dividends resemble a fixed coupon payment. In such a case the equity price, like that of bond prices, bear the full brunt of the higher discount rate.

As Reilly and Brown (1997: 476) comments, the way in which equities adjust to inflation, is essentially an empirical question.

In providing some perspective on company success in offsetting inflation Farrell (1985) used price and dividend data from the S&P 500 and the Consumer Price Index (CPI) between 1947 and 1980. Given the percentage changes in these variables at intervals over the period, Farrell noted that, over the long term, corporations have been able to offset inflation and provide a significant real return to investors. Over shorter intervals, company performance has been less steady.

Leibowitz et al. (1989: 33) empirically found λ to average 0.80 for the S&P 500 from 1980 to 1987. In other words, 80% of any change in the inflation rates tended to “flow through” equities in the form of earnings growth.

This would suggest that if traditional DDM duration is 10, a 1% inflation-induced rise in interest rates would cause the price of the S&P 500 to change as follows:

$$\begin{aligned}\frac{\Delta P}{P} &\approx -D_{DDM}(1 - \lambda)\Delta I \\ &= -10(1 - .80)(1\%) \\ &= -2\%\end{aligned}$$

Leibowitz et al. (1989: 35) noted that:

In reality, flow-through is a positive number. In the long term, it can approach 1.0 for the market as a whole. This inflation flow-through largely explains why the empirical duration of equities, as measured by interest rates, is so much shorter than the calculated DDM duration, as measured by the discount rate.

Companies with low flow-throughs, such as electric utilities, exhibit large price swings when interest rates change. By contrast, companies that have very high flow-throughs exhibit little, if any price sensitivity to changes in inflation.

Although interest rate changes that stem from shifts in inflation have only a modest effect on the stock market as a whole, changes in real interest rates can have a much more profound impact. Changes in nominal interest rates may occur due to changes in real interest rates rather than changes in inflationary expectations. This may produce very different results, because higher real rates increases the cost of doing business. Furthermore, a rise in real interest rates should, all else equal, increase savings relative to consumption, thereby making it difficult for companies to recover the higher costs through product pricing. This led Leibowitz and Kogelman (1993: 63) to argue that there is little reason to expect a high flow through factor for nominal interest rate changes due to changes in real rates. A share's overall price sensitivity could in such a case reach one of the very high duration levels implied by the DDM.

Leibowitz et al. (1989: 33) demonstrated that movements in real interest rates have a profound effect on equity valuation. They stated that the sensitivity of earnings growth in the case of real interest rate changes might be negative so that $(1 - \gamma)$ would exceed unity.

For example if a 1% increase in real interest rates reduces dividend growth by 25 basis points and assuming traditional DDM duration of 10, then the increase in real rates would result in a drop in equity prices of:

$$\begin{aligned}\frac{\Delta P}{P} &\approx -D_{DDM}(1-\gamma)\Delta r \\ &= -10(1+.25)(1\%) \\ &= -12.5\%\end{aligned}$$

The traditional DDM duration does not address the potential interaction between changing interest rate levels and changing equity risk premiums. Risk premiums change with shifts in investors' perceptions of risk and their tolerance of it.

An increase in inflation will undoubtedly increase economic uncertainty, and consequently should cause the risk premium to rise. On the other hand, a rise in inflation may enhance investors' appetite for inflation protection. This can be found in the income stream of equities, which offers significant inflation protection and therefore may actually reduce the risk premium for equities.

The risk premium plays an important role in the model developed by Leibowitz et al. (1989). Leibowitz et al. (1989) argued that if the risk premium (represented by ∂h in Equation (32)) rises with an increase in inflation or real interest rates, then it might be considered "duration-augmenting". If however the risk premium should fall as inflation or real rates rise, it might be considered to have a dampening effect on duration. In addition to the findings of Leibowitz, significant differences in empirical duration for alternative companies (i.e. income- and growth companies) might be anticipated.

Hurley and Johnson (1995) tried to reconcile the difference between Leibowitz's (1986) empirical durations and the traditional dividend discount model by using a class of dividend discount models developed by them.

A variety of multistage growth rate models have attempted to model the development of a company's growth over time (see for example, Sorenson and Williamson 1985, for a discussion of these models).

Hurley and Johson's models try to overcome the standard criticism of DDM's by allowing for realistic patterns of future dividend growth. By giving the dividend stream a Markov property, in the sense that in each period a company will either increase its dividend with a positive probability p , or keep it the same with probability $1-p$. The step pattern of dividend payments that results from this over time resembles real-world patterns. They discounted this "Markov dividend stream" to get an estimate of value.

They considered two ways in which dividends increase. In the additive model the dividend increases by a fixed amount, Δ and in the geometric model the dividend increases by a constant percentage amount, very much similar to Gordon's growth model.

Hurley and Johnson (1994), assuming an additive Markov process, showed the expected value V_A , to be:

$$V_A = \frac{D_0}{k} + \left(\frac{1}{k} + \frac{1}{k^2} \right) \Delta p \quad [\text{Hurley and Johnson (1994: 51), Equation (4a)}] \quad (33)$$

where

k = discount rate

Δ = fixed amount dividend increase

p = probability of a jump in the dividend

and for the geometric Markov process, the expected value V_M is:

$$V_M = \frac{D_0(1 + pg)}{k - pg} \quad [\text{Hurley and Johnson (1994: 52), Equation (6a)}] \quad (34)$$

Hurley and Johson (1997: 92) termed this model the "stochastic geometric growth model", which like the Gordon model, is limited in application to equities of companies with constant growth rates.

After testing these models on three telephone utilities with different dividend payouts, they recommended the use of the additive model for companies with erratic dividend patterns. The use of the geometric model is suggested for more stable income equities.

Hurley and Johnson (1995: 77) derived equity duration from their additive model as given in Equation (35):

$$D_A = \frac{1+k}{k} \left[\frac{D_0 + (1+2/k)\Delta p}{D_0 + (1+1/k)\Delta p} \right] \quad (35)$$

They presented values of D_A for $p = 1$ and $p = 0.25$ for various values of k , with parameter values $D_0 = 2.5$ and $\Delta = 0.25$. They noted that D_A increased with p , the probability of a jump in the dividend. This can be illustrated by means of an example:

If for example $k = .10$, equity duration D_A (for $p = 1$) would equal

$$\begin{aligned} D_A &= \frac{1.10}{.10} \left[\frac{2.5 + (1+2/.10)(.25)(1)}{2.5 + (1+1/.10)(.25)(1)} \right] \\ &= 11 \left[\frac{7.75}{5.25} \right] \\ &= 16.24 \end{aligned}$$

and (for $p = .25$)

$$\begin{aligned} D_A &= \frac{1.10}{.10} \left[\frac{2.5 + (1+2/.10)(.25)(.25)}{2.5 + (1+1/.10)(.25)(.25)} \right] \\ &= 11 \left[\frac{3.8125}{3.1875} \right] \\ &= 13.16 \end{aligned}$$

Hurley and Johnson (1995: 78) also derive equity duration D_M from their geometric model as given in Equation (36):

$$D_M = \frac{1+k}{k - pg} \quad (36)$$

They presents values of D_M for $p = 1$ and $p = 0.25$ for various values of k and $g = 0.05$.

When $p = 1$ D_M is equal to the traditional DDM duration measure (D_{DDM}). If $p < 1$ D_M is lower than D_{DDM} . These values derived by Hurley and Johnson (1995: 78) for equity duration are more in line with what was found by Leibowitz (1986).

Hurley and Johnson's (1994) suggested the use of their valuation models by investment managers concerned with the duration of the equity component of their portfolios. These investment managers can provide their own assessments of the probability of dividend increases in the future and input them into these models.

To summarize, Johnson (1989) presented an explanation for this "paradox" in which he emphasized that the differences arise from estimating duration from price (the DDM approach), as opposed to return sensitivity (Leibowitz's approach).

Leibowitz et al. (1989) modified the traditional DDM approach by assuming that real rates and inflation are the underlying variables relating changes in interest rates to equity duration. They argued that the effect of interest rate changes on equity prices depended on what caused the change, and the effects of the event on the cash flows of common stocks. Despite the fact that common stocks may demonstrate great sensitivity to changes in real rates, companies with high levels of inflation flow-through may have very low interest rate sensitivity. This inflation flow-through can largely explain why empirical duration is so much shorter than DDM duration.

This work also suggests that companies with low flow-through, such as electric utilities, should exhibit large price swings as a result of interest rate changes. This is in contrast to traditional DDM duration that suggests that growth companies are more sensitive to interest rate changes than low growth companies.

Hurley and Johnson's (1994) DDM models allow for realistic patterns of future dividend growth. This enables investment managers to provide their own assessments of the probability of dividend increases in the future and input them into these models. The lower the probability of a jump in dividends for a company the lower the duration. These equity duration values derived by Hurley and Johnson (1995) are more in line with that of Leibowitz's empirical duration.

3.4 Growth opportunities as a determinant of equity duration

With evidence from the market not supporting the traditional DDM approach, further analysis is required to clarify the interest rate sensitivity of growth companies. This section turns the attention to growth opportunities, which have been identified in the literature as a determinant of equity duration. The proxies that are commonly used to measure growth opportunities are also discussed. This discussion will assist the reader in distinguishing between growth companies and non-growth companies.

According to Leibowitz and Kogelman (1990: 59) the general problem of failing to appreciate the magnitude and type of growth stems largely from the tendency to view growth in an overly simplistic manner. For example, as a smooth pattern of constant growth, self-funded by retained earnings, self-funded by retained earnings, generating added earnings with each growth increment. Leibowitz and Kogelman (1992: 59) noted that because of the intuitive appeal of uniform growth “it is not surprising that [this] concept pervades much of our intuition about how equity value *should* develop over time”.

Despite its appeal, the simple concept of uniform growth can be misleading on several accounts. In real life growth is erratic, exhibiting neither uniformity over time nor homogeneity in its impact on companies. It is very important to realise that not all growth produces incremental value. In order to generate incremental value investments must be made in exceptional opportunities that promise above market ROE. For equities, growth alone is not enough. Routine investments that a company makes at the market rate may contribute to nominal earnings growth but not add net value. Investments at below market returns will actually subtract from value.

Miller and Modigliani (1961: 417) summarised “growth” as follows

A corporation does not become a ‘growth stock’ with a high price-earnings ratio simply because its assets and earnings are growing over time... The essence of ‘growth,’ in short, is not expansion but the existence of opportunities to invest significant quantities of funds at higher than ‘normal’ rates of return.

Another point of confusion inherent in the usual assumptions about growth is the notion that growth should be self-funded out of retained earnings. According to Leibowitz and Kogelman (1990: 18) the key issue here, is not whether a company has retained the necessary earnings to self-fund a new investment opportunity but rather whether that opportunity offers an above-market return. These investment opportunities which offers above-market returns can be thought of as “franchise growth opportunities” (Leibowitz and Kogelman 1990: 28)

3.4.1 The price earnings ratio as a measure of growth opportunities

The price earnings ratio (also known as the earnings multiplier) is widely used as a measure of future growth. It has the ability to distinguish between companies that are merely expanding and those with growth opportunities.

The earnings multiplier are computed as follows:

$$\frac{\text{Current Market Price}}{\text{Expected 1 Year Earnings}} \quad (37)$$

This is the ratio of price per share to earnings per share. Forecasting the earnings multiplier is very difficult with P/E ratios varying across industries and over time (Bodie et al. 1995: 337).

The classic model used to estimate a theoretical P/E ratio is the DDM. Despite the fact that the concept of uniform growth can be misleading it offers to provide some insights into how various factors influence P/E. The constant growth DDM Equation (19) can be transformed into an earnings multiplier model by dividing both sides by E_1 .

$$\frac{P}{E_1} = \frac{d_1/E_1}{(k - g)} \quad (38)$$

where

E_1 = expected 1 year earnings

The price earnings ratio is determined by:

- expected dividend payout ratio (d_1/E_1)
- required rate of return on the stock (k)
- expected growth rate of dividends for the stock (g)

According to Bodie et al. (1999: 544) it is the differences in expected growth opportunities that justify the differences between companies P/E ratios. The P/E ratio actually is a reflection of the market's optimism concerning a company's growth prospects. In order to clarify this statement they examine the constant growth DDM model further. Recalling that dividends equal those earnings that are not reinvested in the company, d_1 can be written as:

$$d_1 = E_1(1 - b) \quad (39)$$

where

b = retention rate

With the growth rate g , equal to $(ROE \times b)$, substituting d_1 and g into Equation (19) results in:

$$P = \frac{E_1(1 - b)}{k - ROE \times b} \quad (40)$$

This imply that the P/E ratio is:

$$\frac{P}{E_1} = \frac{1 - b}{k - ROE \times b} \quad (41)$$

From Equation (41) it is easy to see that an increase in ROE will result in a higher P/E ratio. This would make sense as projects that yield high ROE 's give companies good opportunities for growth. It can also be shown that P/E increases with b , as long as $ROE > k$. The market will reward a company with a higher P/E ratio if it exploits those good investment opportunities more aggressively. This is done through plowing back more earnings into those opportunities.

While a higher retention rate always results in a higher growth rate, it does not necessarily mean a higher P/E ratio. For $ROE < k$, the value of a company will fall as the retention rate increases. A higher retention rate will only increase P/E if investments undertaken by the company offer an expected rate of return that is higher than the market capitalisation rate.

It is important to note that the earnings multiplier as predicted in Equation (41) uses expected future economic earnings while the P/E ratios reported in the news papers, by contrast, use the most recent past accounting earnings. These accounting earnings can differ substantially from future economic earnings (Bodie et al. 1999: 549).

3.4.2 Book-to-market ratio as a measure of growth opportunities

The B/M ratio is the reciprocal of the price-to-book ratio (P/B), which is a widely used indicator of high- or low-growth companies. The P/B ratio equals the market price of a share of the company's common equity divided by its book value, where book value is the net worth of a company as shown on the balance sheet.

According to Reilly and Brown (1997: 735), the P/B ratio has been used extensively by analysts in the banking industry. The reason for its use is that bank assets often have similar book values and market values. Bank assets include investments in bonds and commercial loans that have a value equal to book value. Under such conditions the P/B ratio should be close to 1.0. A bank with significant growth potential due to its location or because merger talks can have a P/B ratio above 1. As a result these P/B ratios have ranged from 0.6 to over 2.0 for different individual banks.

It is easy to visualise why industrial companies would have P/B ratios exceeding 1.0. Book value of assets are based on historical cost which will almost always be lower than either their current replacement value of the company's break-up value.

Equity valuation theory offers some insight into the significance of the P/B ratio. Companies with high P/B ratios are considered to have opportunities to earn a rate of return in excess of the market capitalisation rate k . Bodie et al. (1999: 583) show the P/B ratio for alternative assumptions about future ROE and Retention rates.

Table 2. Effect of ROE and retention rate on price-to-book

		Retention Rate <i>b</i>		
	0	25%	50%	75%
<i>ROE</i>				
10%	1.00	.95	.86	.67
12%	1.00	1.00	1.00	1.00
14%	1.00	1.06	1.20	2.00

Source: Bodie et al. 1999: 583, Table 19.9.

Assumptions and equations underlying Table 2 are:

$$E_1 = \$1 \quad BV = \$8.33 \quad k = 12\%, \text{ and}$$

$$g = b \times ROE \quad P_0 = \frac{E(1-b)}{k-g} \quad \frac{P}{B} = \frac{P_0}{\$8.33}$$

By reading down any of the columns in Table 2, it is clear that P/B ratio changes with ROE. For a given retention rate, the P/B ratio is higher the higher the ROE. This is because the greater the expected profitability of a company's future investment opportunities, the greater its market value as an ongoing concern compared with the cost of acquiring its assets. Clearly high P/B (or low B/M) is a good proxy for high growth companies that are considered to have a large amount of growth opportunities.

Growth companies typically have the management ability and the opportunities to make these investments that yield rates of return greater than the companies required rate of return. For example, a growth company might be able to acquire capital at an average cost of 8% and yet have the ability and opportunity to invest those funds in projects, which earn a rate of return of 12 to 15 percent.

Growth companies sales and earnings grow faster than those of similar risk companies and the overall economy, because of these investment opportunities. These growth companies with their above-average investment opportunities typically retain a large portion of their earnings to fund these superior investment projects.

There is no guarantee that a company's retained earnings will equal the extent of the investment opportunities. Nevertheless companies would want to take full advantage of any opportunities to earn above-market returns. In today's capital markets companies should be able to raise the needed capital to fund projects that offer exceptional returns. Capital can always be raised through the issuance of additional equity, paying the market rate for such funds. As a result, it does not matter whether new investments are funded by retained earnings or by additional equity issuance. The pursuit of exceptional returns should therefore only be limited by their occurrence.

According to Reilly and Brown (2000) the DDM's basic assumptions of constant growth is extremely questionable for growth companies. The DDM implicitly assumes that a company always has the opportunity to make investments that offer a return equal to the company's initial ROE. In the words of Leibowitz and Kogelman (1990: 28) "it is clearly more realistic to assume that [growth] opportunities arise on a less-than regular schedule.

The ability of a growth company to invest capital in projects that generate rates of return greater than the company's cost of capital should be considered temporary. Economic theory teaches that in a competitive economy all companies should in the long run produce at the point where marginal revenue equals marginal cost.

It is impossible for a true growth company to exist for an infinite period in a relative competitive economy. With patents and copyrights running out, unusual management practices that can be copied, and competitors entering the industry, the constant growth DDM appears to be inappropriate for the valuation of growth companies.

In this regard Reilly and Brown (2000) considered special valuation models allowing for finite periods of abnormal growth as well as possibilities of different growth rates. See for example Reilly and Brown (2000: 825) for valuation methods of growth companies. Very similar to the growth company valuation models are the analysis of franchise value or franchise P/E.

In the next section attention is focussed on the franchise factor model which has also been used to examine interest rate sensitivity.

In a series of papers on the theoretical P/E ratio, Leibowitz and Kogelman (1990, 1991, 1992) found that investors generally fail to appreciate the magnitude and type of growth required to support a high P/E ratio. Leibowitz and Kogelman (1990: 19) noted that: “neither growth alone nor above-market ROE alone is sufficient to command a premium P/E”. After comparing different companies, they conclude that investors will not “pay up” in price or in P/E ratio for a company reinvesting at just the market rate. To be able to command a P/E in excess of the base P/E a company must achieve a return in excess of the market rate on new investments. They provided a simple model of the future investment opportunities required to support an above-market P/E.

This model separated the ingredients of P/E expansion into two factors. A franchise factor FF that represents the P/E impact of new investments at a specified return and a growth measure that reflects the magnitude of these new investment opportunities G .

The Franchise factor is the P/E increase that results from one unit of present-value Growth Equivalent investment. In other words if the present value of new investments were equivalent to the current size of the company, the P/E multiple would increase by an amount equal to the Franchise Factor. The present-value Growth Equivalent investment is the sum of the present values of all future investment opportunities expressed as a percentage of the original book value of a company.

The franchise factor measures new investments impact on the P/E ratio. The franchise factor is calculated by dividing the return premium offered by the company with the product of the ROE and the market rate, as shown in Equation (42)

$$FF = \frac{R - k}{rk} \quad (42)$$

where

R = expected return on future franchise investments

r = current ROE on investment, and

k = market capitalization rate

rk = return on current book equity times market capitalization rate

The FF measures the impact of opportunities to make new investments that provide a return equal to the company's ROE. (See Leibowitz & Kogelman (1990: 32) for the derivation of the FF)

The stream of all future franchise opportunities, as implied by the DDM, are encapsulated in a single term, G which is the present value growth equivalent of these investments. To derive the present value of the growth equivalent all future franchise opportunities are discounted at the market rate. The result is then expressed as a percentage of the original book value of the company. The growth equivalent makes it possible to view the stream of future opportunities as equal to a single, immediate opportunity to invest and then earn the ROE in perpetuity.

Expressing the P/E ratio in terms of the market rate, the growth equivalent and the franchise factor results in the following:

$$\frac{P}{E} = \frac{1}{k} + FF \times G \quad (43)$$

where

$$\frac{1}{k} = \text{base P/E (or the inverse of the market discount rate)}$$

FF = franchise factor, and

G = present value of the new growth projects relative to the current value of the company

This captures the increase in the P/E ratio that results from the combination of growth and above-market ROE. The basic FF model has also been extended to apply to leveraged companies. For an indepth discussion of the franchise factor for leveraged firms, see Leibowitz and Kogelman (1991).

According to Leibowitz and Kogelman (1990: 19) the franchise factor approach can provide a much clearer picture of the “real components of enhanced equity value.” This is because of its decomposition that would allow analysts to eliminate the confusion resulting from the DDM’s intertwined assumptions regarding a constant growth process, implicit return levels and dividend-payout policies.

Leibowitz and Kogelman (1992) used the franchise factor model to distinguish between a company's "tangible value" and its "franchise value". They expressed the theoretical market value of a company as the sum of these two values. Tangible value is the capitalized value of a company's current earnings stream. Franchise value is the capitalized value of the potential payoff from all future franchise investments from which the company can earn above-market returns.

Leibowitz and Kogelman (1993) examined equity's interest rate sensitivity in the context of their franchise factor model. They showed how this model distinction between tangible and franchise value could help resolve the "equity duration paradox".

Leibowitz and Kogelman (1993) demonstrated that the standard DDM approach and the tangible value and franchise value approach to equity valuation have the same duration, under the fundamental assumption of perfect certainty.

With the use of DDM assumptions Leibowitz and Kogelman (1993: 52) showed the theoretical price of an equity using Equation (19) equals:

$$\begin{aligned} P &= \frac{d}{(k - g)} \\ &= \frac{\$8}{(.12 - .08)} \\ &= \$200 \end{aligned}$$

The equity duration according to the traditional DDM measure (Equation 22) would equal:

$$\begin{aligned} D &= \frac{1}{(k - g)} \\ &= \frac{1}{(0.12 - 0.08)} \\ &= 25 \end{aligned}$$

Taking P as the theoretical price of the company, P can also be written as:

$$P = T_v + F_v \quad (44)$$

where

T_v = tangible value

F_v = franchise value

By summarising the key features of the franchise factor model and recasting the DDM in terms of that model resulted in:

$$\begin{aligned} T_v &= \frac{E}{k} \\ &= \frac{\$16}{.12} \\ &= \$133.33 \end{aligned} \quad (45)$$

where

E = earnings per share

and

$$\begin{aligned} F_v &= \frac{r-k}{rk} \times \frac{g}{k-g} \times E \\ &= \frac{0.16-0.12}{0.16 \times 0.12} \times \frac{0.08}{0.12-0.08} \times \$16 \\ &= \$66.67 \end{aligned} \quad (46)$$

In this case Equation (40) would equal:

$$133.33 + 66.67 = \$200.00$$

Taking the first derivative of tangible value D_{Tv} and franchise value D_{Fv} with respect to k , results in:

$$\begin{aligned} D_{Tv} &= \frac{1}{k} \\ &= \frac{1}{.12} \\ &= 8.33 \end{aligned} \tag{47}$$

and

$$\begin{aligned} D_{Fv} &= \frac{r}{[k(r-k)]} + \frac{1}{(k-g)} \\ &= \frac{0.16}{[0.16(0.16-0.12)]} + \frac{1}{(0.12-0.08)} \\ &= \frac{33.33}{1} + \frac{25}{1} \\ &= 58.33 \end{aligned} \tag{48}$$

(See Leibowitz and Kogelman (1993: 64) for the full derivation of D_{Tv} and D_{Fv} .)

Leibowitz and Kogelman (1993) then calculated the overall equity duration D_T of these two durations as follows:

$$\begin{aligned} D_T &= (66.67)(8.33) + (33.33)(58.33) \\ &= 5.56 + 19.44 \\ &= 25 \end{aligned}$$

where the weights are the relative proportions of tangible value and franchise value.

When setting the franchise factor model equal to the standard DDM, D_T is the same as the traditional DDM duration. What is interesting however, is that most of the interest rate sensitivity (19.44) is reflected by changes in the value of F_V , even though F_V represents only one-third of the price of the equity. In contrast T_V 's contribution to equity duration is only (5.56). This is because the franchise opportunities are utilized much later.

Leibowitz and Kogelman (1993) turned to a more general inflation-adjusted form of the franchise factor model to explain the observed market equity duration. This model which they called the *FF** Model showed that T_v and F_v responds differently to changes in the expected inflation rate.

T_v is based on an earnings stream that is relatively predictable. This is because these earnings are generated by existing businesses. The certainty of this cash flow gives the T_v “bond like” characteristics and results in T_v duration that is comparable to that of long maturity bonds. Leibowitz and Kogelman (1993: 56) showed that for a reasonable range of inflation assumptions, D_{T_v} vary from zero in the case of 100% inflation flow-through to about 10 for 0% inflation flow-through. Because these existing businesses with assets in place often have substantial cash flows that are fixed in nominal terms, the inflation flow-through is likely to be lower and interest rate sensitivity higher for T_v . Therefore, under general conditions the value of D_{T_v} remains consistent with observed levels of equity duration.

It is thus necessary to look at D_{F_v} as the source of the discrepancy between actual market behaviour and theoretical durations of 25 to 50 implied by the standard DDM.

Because F_v is based on future investment, its very nature suggests it should be relatively insensitive to future inflation effects. Because F_v deals with future investments, rather than the current business, it presumably reflects more closely the choices that management is free to make at a later stage. When entering into new businesses, inflation flow-through capability is likely to be an important consideration. It can be assumed that management would try to avoid new investments whose earnings could be seriously eroded by inflation.

Therefore, with future investment opportunities representing discretionary costs, they are more likely to have higher inflation flow-through than assets in place, so that F_v have a low sensitivity to changes in expected inflation. Thus for discount rate changes driven by inflation, the general *FF** Model argues for a low F_v duration.

The view taken by the *FF** Model is completely opposite to that of the DDM. On the basis that high flow-through should be embedded in F_v it follows that D_{F_v} should remain low, even as g increases. Leibowitz and Kogelman’s *FF** Model helps to resolve the equity duration paradox by giving lower duration values consistent with observed market behaviour.

In the case of growth companies earnings growth are exhibited from a variety of sources. Growth derived from existing investments (Tv), growth associated with future franchise investments (Fv), and various combinations of these growth sources.

Leibowitz and Kogelman (1993: 63) concluded that

When growth is derived primarily from new investments ... the high flow-through should result in a low duration for firms where Tv growth of old investments is dominant, the duration will probable not exceed about eight or nine Thus the duration of "growth firms" spans a rather wide spectrum depending on the sources of growth However, even in the most extreme case, the FF*Model duration will be significantly lower than the very high duration predicted by the DDM.

To summarize, Leibowitz and Kogelman (1993), using their franchise factor model demonstrated that the traditional DDM approach and the tangible value and franchise value approach to equity valuation, have the same duration under the assumption of perfect certainty. However, when this assumption is relaxed they showed that tangible value and franchise value responds differently to changes in inflation.

The case was made that future investment opportunities represent discretionary costs, which are more likely to have high inflation flow-through than assets in place. Thus if nominal interest rate changes are due to inflation and the inflation flow through factor in Fv is high, Fv will be less sensitive than Tv . Leibowitz and Kogelman (1993) helped to resolve the equity duration paradox by giving lower duration values consistent with observed market behaviour.

This work also contributes to our understanding of growth companies' interest rate sensitivity. It suggests that the duration of growth companies span a rather wide spectrum depending on the sources of growth. Despite this wide range, the inflation-adjusted franchise factor model still argues for equity duration's significantly lower than predicted by the traditional DDM approach.

3.5 Growth opportunities and option pricing theory

In this section, attention is turned to growth opportunities' option-like characteristics. It is argued that, by their very nature, investment opportunities are similar to options a company has. This suggests that growth opportunities may alter the basic relationship between equity valuation and interest rate changes. While previous discussions have addressed the effect of the earnings growth rate on equity duration, the growth rate by itself does not capture the option element in a company's growth opportunities.

According to Hevert et al. (1998: 44) the one factor that has not been considered in the equity duration literature is the effect of growth options.

The second approach in equity valuation, as shown in Miller and Modigliani (1961: 415) classifies earnings into different components: those generated currently from assets in place and those flowing from future investment opportunities.

Brealey and Myers (1996) for example, showed that it is equivalent to the DDM to express the value of a company's equity as the sum of the present value of the earnings stream from assets in place and the present value of the company's growth opportunities. Previous analysis of equity duration, which embodied this notion simplistically, assumed that a company's growth opportunities were certain to be undertaken. Later research however, has questioned such assumptions.

Hevert et al. (1998: 44) argued that

Growth opportunities ... represent the value of investment projects that have not yet been undertaken but that the firm is expected to have the opportunity to undertake in the future.

While assets in place are the result of past decisions growth opportunities represent future decisions the company may potentially make. Companies with growth opportunities are not, to the same extent, committed to a fixed production process. Growth opportunities differ from assets in place in that the company has not yet made fixed capital commitments.

Hevert et al. (1998) argued that investment opportunities are akin to options a company has. This is because it is only when conditions are suitable that these future investments are made. According to Hevert et al. (1998), growth opportunities option-like characteristics alter the basic relationship between equity valuation and interest rate changes.

If growth opportunities convey the right to undertake a project by investing a specified amount on or before a specified date, option pricing theory suggests that their values would increase with interest rates. This is opposite to observed discounted cash flow stream patterns, which decreases as the discount rate increases (because the cash flows are discounted at a higher rate).

In contrast, call options are more valuable when interest rates increase. This is because the present value of the future investment (which is equivalent to the exercise price of a financial option) is reduced. Less funds need to be put aside today in order to capitalize on potential future investment opportunities which are only undertaken under the right conditions.

An increase in interest rates should affect equity values of low growth companies (with no investment opportunities), negatively. In contrast for high growth companies (with many investment opportunities), an increase in interest rates has two opposite effects. It will reduce the present value of cash flows from current assets in place, but it will also increase the value of the options embedded in the future investment opportunities.

Furthermore, inflation (as discussed by Leibowitz and others) could have a very different impact on low- and high growth companies. For example, suppose that an asset's real cash flows are fixed. In the case of interest rate increases as a result of inflation the asset's value should be unchanged. This is because the inflation flow through increases the project's nominal cash flows, leaving the project's value unaffected.

Sweeney (1998: 279) noted that

Future investment opportunities represent discretionary costs, which are more likely to have high inflation flow-throughs than assets in place Unlike growth opportunities, assets in place often have substantial cashflows which are fixed in nominal terms.

Sweeney (1998) argued that because total duration D_E is a weighted average of the duration of the individual components is assets, companies with high growth opportunities should have lower total duration than those with a high proportion of assets in place.

$$D_E = \frac{AIP}{FA} D_{AIP} + \frac{GO}{FA} D_{GO} \quad [\text{Sweeney (1998: 279), Equation (3)}] \quad (49)$$

where

D_E = equity duration

AIP/FA = assets in place as a percentage of total assets

GO/FA = growth opportunities as a percentage of total assets

D_{AIP} = duration of assets in place, and

D_{GO} = duration of growth opportunities

This approach in Equation (49) implies a negative relationship between duration and growth. Companies having high proportion of growth opportunities will have lower duration than companies with a low proportion of growth opportunities.

Sweeney (1998: 281) argued that growth options should have higher interest rate flow-through effect than assets in place. In cases where interest rates cannot be passed on and it is likely to have a negative impact on growth opportunities, the growth options can be allowed to lapse. Because, assets in place, which involves non-discretionary expenditure do not have an option component they should be more sensitive to changes in interest rates.

The options framework suggests that the duration of growth opportunities may be shorter (not longer) than those of assets in place. The option-like characteristics of growth opportunities, further suggest that companies with significant growth opportunities could have negative durations. In other words, the value of such growth companies will tend to increase when interest rates increases.

The results from option theory cannot be applied directly to growth options, since some of the assumptions may not be valid in the case of growth options.

Cornell (2000: 106) argued that

Growth options are a good deal more complex than stock options There is no fixed maturity date; there is generally not an underlying traded asset; and, most important, the value of the project and the exercise price both depend upon movements in interest rates.

With the relationship between interest rates and the value of the underlying project and the exercise price being virtually impossible to specify *ex ante*, it might not be feasible to attempt to use option pricing theory to calculate the duration of growth options.

He furthermore argued that the same problems arise in the case of assets in place. This is because assets in place also have significant option characteristics such as the option to expand, contract or terminate current operations. Kadiyala (2000: 288) distinguished between financial-and real options. He argued that unlike financial options, whose maturity date is stipulated in the option contract, real option maturity depends on the level of competition in the industry and on the nature of the investment project.

Some real options, such as a patent for developing a new product that has no close substitutes, the project has a potentially long life. Other options such as the opportunity to introduce a product that competes with other substitutes or the opportunity to enter a new geographic market, competition can affect the decision to exercise the option. Real options of companies that exercise more market power in their product market are likely to have a greater life span. Companies trying to deter entry by competitors will exercise its growth options early and undertake the investment.

Hevert et al. (1998) stressed that the presence of these real options makes it virtually impossible to calculate equity duration theoretically. As a result increased attention has been focused on attempts to estimate equity duration empirically. However, theoretical explanations are still very important to understand whatever empirical duration may find.

3.6 Empirical studies considering the effect of growth opportunities on equity duration

Previous theoretical analysis that showed that growth companies have higher durations than low-growth companies, have been questioned by later research. According to some recent empirical studies growth companies have much lower durations and even negative durations in some instances. One of these more recent empirical studies was done by Hevert et al. (1998).

Hevert et al. (1998) formed a portfolio of the highest growth companies (lowest quintile of book-to-market stocks) and one of lowest-growth companies (highest quintile) from all companies listed on the NYSE, Amex and Nasdaq for the period July 1972 to June 1995.

This was done, by sorting companies annually into quintiles on the basis of their B/M ratios. From the resulting five portfolios, the middle three B/M ratio quintiles were eliminated. This made it possible to compare the portfolio of the highest growth companies (lowest quintile of B/M) with the lowest growth companies (highest quintile of B/M). Regressing the monthly returns of the high and low growth portfolios on nominal interest rates, they found that the low-growth portfolio exhibited significantly greater interest rate sensitivity than the high-growth portfolio. When isolating the effect of changes in inflation from changes in real interest they found that the coefficients of both the change in inflation and the change in real rates are positive and significant for the high growth portfolios, while for the low growth portfolio, both coefficients are negative and significant.

When regressing these portfolio's returns on both the changes in the nominal rate and the market index, they found that high growth companies reacted positively to interest rate increases, while the opposite is true for the lowest-growth companies.

The coefficient on the change in nominal interest rates for the low-growth portfolio was negative, -25.721, and significantly different from zero at the 1% level. In the case of the high-growth portfolio the coefficient was positive, 13.53, significant at the 1% level. These results suggested that a 1% increase in nominal interest rates would reduce the value of the lowest growth companies by roughly 26%, while the value of the highest growth companies would increase by roughly 14%.

Hevert et al. (1998: 47) noted that

Since the coefficient for the high growth portfolio is positive, the result also implies that the value of growth opportunities increases with interest rates ... and thus that growth options have a negative marginal duration.

Furthermore, their results indicated that although the magnitude of interest rate sensitivities do vary over consecutive sub-periods, the high and low growth companies show nominal interest rate coefficients that are distinctly opposite in sign for the period 1972 to 1999. This suggests that the relationship between growth opportunities and interest rate changes, are a general one not limited to a specified time period.

Hevert et al. (1998) concluded that investment managers who wish to hedge against interest rate increases should tilt their portfolios towards equity of higher growth companies.

However, high growth companies have greater market exposure because they have larger betas. So it is important to realize that although high growth companies are likely to be less sensitive to interest rate increases they do tend to be more sensitive to equity market volatility.

Sweeney (1998) empirically tested the relationship between growth options and the duration of equity on Australian companies. Market value to net tangible asset (MV/NTA) ratio and the P/E ratio were used to classify companies as having a relatively high or relatively low percentage of growth options. From a sample of 120 companies, the 30 companies representing the top quartiles of highest MV/NTA values were selected to represent high growth option companies while the 30 companies in the bottom quartile were selected to represent the lowest growth option companies. This was then repeated on the bases of P/E values.

A series of four regression models were applied to each of the MV/NTA and P/E based high and low growth portfolios. Separate regression models were used to test the impact of changes in nominal- and changes in real interest rates on portfolio returns. The evidence from this empirical study were mixed. The use of the MV/NTA as a proxy of growth options indicated that the relative proportion of assets in place and growth opportunities appear to have an impact on the equity duration of industrial companies listed on Australian Stock Exchange (ASX).

When the results of high-growth MV/NTA portfolio were regressed on both changes in nominal interest rates and the market index, the annual coefficient was -2.33, while for the low-growth MV/NTA portfolio it was -1.12. This implied that the value of high growth companies would decrease more than low-growth companies.

This relationship support the predictions for the discounted cash flow techniques by Casabona et al. (1984) and the theoretical dividend discount model of Leibowitz and Kogelman (1993) in that high growth companies tend to have higher duration than low growth companies.

In contrast, when the P/E ratio was used the difference in interest rate sensitivity between high- and low growth portfolios was insignificant. However, the direction of the relationship was contrary to that predicted by DCF and DDM theory. The high growth portfolios were less interest rate sensitive (a coefficient of -2.42) than the low growth portfolio (a coefficient of -2.88).

Although this difference were not statistically significant, the P/E ratio as a proxy appeared to support predictions (concerning interest rate sensitivity) based on option pricing theory following Leibowitz and Kogelman's (1993) franchise factor approach and Hevert et al's (1998) option-like approach.

When the nominal interest rate were separated into real and inflationary components Sweeney (1998) found no significant difference in interest rate sensitivity between the high and low growth portfolios with respect to real rates and the inflation factor.

Sweeney (1998: 284) argued that the reason for the much smaller difference in equity duration between high and low growth portfolios are as a result of institutional differences between the United States and Australia, the time frame studies, potential bias from the use of proxy variables and data limitations. Sweeney (1998: 290) suggested that for future research, an alternative proxy of proxies should be used to reflect growth options and changes in interest rates.

Cornell (2000) extended the work of Hevert et al. (1998) and Sweeney (1998) through examining more closely the impact of the regression model on empirical estimates of equity duration. In a series of papers Fama and French presented convincing evidence that equity returns are best captured by using a three-factor model. The three explanatory variables used by Fama and French are the market portfolio, size and book-to-market factors. This led Cornell (2000) to examine how the response of equity prices to interest rate changes evolved when moving from regression using only changes in interest rates as an explanatory variable, to a model adding the market return and finally to a regression model that included all three factors.

Cornell (2000) used all twenty-five portfolios as constructed by Fama and French sorted by B/M ratio and market capitalization. Unlike Hevert et al. (1998) and Sweeney (1998) which chose the change in the average yield on the ten-year constant maturity treasury notes and a long term government bond rate as their explanatory variables, respectively, Cornell (2000) used the treasury bond return.

Cornell (2000: 107) argued that

The problem with [Hevert et al. (1998) and Sweeney (1998)] choices is that it represents an average for the month, while stock returns are measured from the beginning of the month until the end. For this reason, the change in interest rates and the stock returns do not align properly.

Thus the use of the treasury bond return, rather than the change in interest rates, can help avoid potentially significant measurement errors as a result of non synchronous data. However, this will alter the estimated coefficient. Cornell (2000: 107) noted that under the assumption that modified duration remained constant, the estimated coefficient can be multiplied by the factor, minus modified duration, when treasury returns are substituted for the change in interest rates.

The period studied by Cornell (2000) were, January 1966 through December 1998. When Cornell (2000) regressed the equity returns on treasury bond returns, the treasury return coefficients, b were positive and highly significant for all twenty-five portfolios. The findings suggested a negative relationship between interest rate movements and portfolio returns (positive duration).

Adding the market index to the regression revealed a different set of results. While the treasury return coefficients for small companies remained highly significant, their duration switched from positive to negative. The coefficients rose as the companies' size increased becoming significantly positive for large companies. The observed increase of coefficients when moving from low- (high growth companies) to high B/M portfolios (low-growth companies) by Hevert et al. (1998) is less pronounced than the changes in the coefficients observed by Cornell (2000) when moving from small- to large companies. This fact is missed by Hevert et al. (1998) because they make use of only two portfolios sorted on B/M.

Hevert et al. (1998) interpret their findings that growth opportunities have significant different and apparently negative duration, in contrast to the positive duration of assets in place, as a B/M effect. When Cornell (2000) considered all twenty-five portfolios it is seen to be a size effect.

Cornell (2000: 110) argued that

While it is still possible that [Hevert et al's (1998)] interpretation has merit, in that small firms may have more growth opportunities than large ones, the story must be related more strongly to size than to book-to-market ratios.

Including all three factors in the regression model, the results changed once again. With a few exceptions the coefficients were insignificant. There was no longer any evidence of size, or B/M, variations in the duration coefficients.

The estimated b coefficients were distributed about a mean value of 0.02, which indicated a slightly positive but both statistically and economically insignificant duration. Also the results for sub-samples showed that when the size and book-to-market factors were added as explanatory variables, the relationship between equity returns and treasury returns disappeared.

Cornell (2000: 110) argued that

The fact that equity duration disappears when a three-factor model is used suggests that changes in interest rates (Treasury returns) are correlated with at least one of the Fama-French factors.

Cornell (2000) found that the most significant relationship was between the treasury returns and returns of the market portfolio. Regression of market return on treasury bond returns yielded a b coefficient of 0.46 with a t-statistic of 6.54. This showed that the predominant impact of interest rates on individual equity portfolios is through the market factor. Such an impact produces a significant positive duration for equities in general, independent of size or book-to-market.

3.7 Summary

There are conflicting predictions concerning the interest rate sensitivity of growth companies under the different valuation methods.

The DDM predicted high theoretical duration for growth companies. Casabona et al. (1984) and Gould and Sorenson (1986) also predicted that high growth companies would have higher duration than low growth companies using DCF techniques. In contrast Leibowitz and Kogelman (1993) predicted much lower duration when introducing their franchise factor model. Hevert et al. (1998) used option pricing to demonstrate that high growth companies may have lower duration than low growth companies.

Empirical studies found much shorter equity duration than theory would suggest. Various attempts have been made to reconcile the difference between theoretical predictions of equity duration and empirical findings. The differences in the duration of assets in place and growth opportunities have been given as a possible reason for this difference between theory and empirical evidence.

Hevert et al. (1998) argued that growth opportunities represent options that can be allowed to lapse if changes in interest rates cannot flow through to cash flows. Because, assets in place, which involves non-discretionary expenditure do not have an option component they should be more sensitive to changes in interest rates. Thus, option pricing theory, would suggest that growth options should have a higher interest rate flow-through effect than assets in place.

The results from option theory can however not be applied directly to growth options, since some of the assumptions may not be valid in the case of growth options. Cornell (2000), for example argued that growth options are a good deal more complex than stock options. There is no fixed date and generally not an underlying traded asset. Most importantly the value of the project and the exercise price both depend upon movements in interest rates.

It must be stressed that the presence of these growth options makes it virtually impossible to calculate equity duration theoretically. Therefore, by focussing on an empirical study it can be attempted to estimate equity duration empirically.

The following chapter will empirically test the relationship between growth opportunities and equity duration by focussing the attention on the interest rate sensitivity of South African growth companies.

CHAPTER 4

4. RESULTS OF MULTIPLE REGRESSION ANALYSIS AND IMPLICATIONS

4.1 Introduction

This chapter extends the empirical work by others, which tested the relationship between growth opportunities and equity duration. The main objective being, to provide insight into the interest rate sensitivity of South African growth companies.

This study also takes into consideration the impact of the specifications of the regression model on empirical estimates of equity duration. This is done by applying, not only univariate regressions, but also market model regressions and finally multifactor regressions.

All non-mining companies on the (JSE), with sufficient data were analyzed (See Appendix 1). In order to determine if there is a significant difference between the interest rate sensitivity of growth companies and non-growth companies, these companies were sorted into different portfolios that reflected their growth opportunities. This was done by firstly sorting the companies for each year according to their market capitalization. The result was then divided into quartiles, with the first quartile consisting of the largest companies according to market capitalization and the fourth quartile having the smallest companies.

Four separate portfolios were then formed for each size quartile according to B/M and P/E ratios respectively. These ratios were obtained from McGregor's BFA databases. Within each size quartile the portfolios run from low B/M to high and from high P/E to low. Thirty-two portfolios were thus formed for each year of the period 1980 to 2000. The negative B/M companies were all included into the lowest B/M portfolio and highest P/E portfolio. Every year the portfolios were reformed using the ratios of the previous financial year-end.

If companies were delisted during certain years of the study, they were included for the years they were listed and had accounting data available on the database. Share prices and dividends were also obtained from McGregor's BFA databases. Average monthly returns were then calculated for the thirty-two portfolios after adjusting for stock-splits.

Two sets of interest rate data were obtained, namely: average monthly yields on long-term government bonds, and month ending yields on long-term government bonds. The decision was made to always use the government bond rate with the longest time to maturity, as this interest rate represents a risk free rate and overcomes the problem of changes in the risk premium through time.

The present research used six regressions to estimate interest rate sensitivity of common stock. Using the specifications defined in Equations (1), (3) and (5), as well as their variations that separate the real and inflationary components of interest rate changes, (See Chapter 1) regression models for the thirty-two portfolios are estimated.

4.2 Results of multiple regression analysis

Regression analysis was performed to determine the relationship of each portfolio's average monthly return, with a set of independent variables.

The main results for the twenty-one-year sample are reported in Tables 3 to 8. The estimated β -coefficients are given with its t-statistic in brackets. The coefficient of the interest rate variable, given that it measures the sensitivity of share prices to changes in interest rates, can be used as a measure of equity duration.

The first regression as stated in Equation (1), attempts to capture the interest sensitivity of equity returns in the simplest possible terms, without any additional explanatory variables. Table 3 shows that when monthly stock returns are regressed against a single explanatory variable, namely monthly change in nominal interest rates (See Appendix 2a and 2b), the estimates of the β -coefficient are negative. This negative coefficient implies a negative relationship between interest rates and stock prices (positive duration). The t-statistics are significant at the 5% level for all companies except for the smallest size quartiles.

Despite sorting the portfolios according to book-to-market and price-earnings, as well as using both average- and ending monthly interest rates, the results are very much similar. All four panels reveal the tendency for both the coefficients and the t-statistics to increase when moving from small companies to large companies. In addition, there is no real evidence that the coefficients or t-statistics increase when moving from low- to high B/M portfolios or from high- to low P/E portfolios. It is also clear that change in nominal interest rates do not explain much of the return variance for the thirty-two portfolios, with the R^2 's ranging from around 0.000025 to 0.160034 (See Appendix 3).

The third regression as stated in Equation (3) control's for the overall market factor. The market factor was calculated as the equal-weighted average of the monthly returns to all sample companies (See Appendix 4). The coefficient of change in the nominal interest rate, ΔI_t , in Equation (3) represents the effect of an interest rate change, holding the market factor constant. It attempts to estimate the marginal interest sensitivity of a portfolio. With high-growth portfolios having significantly higher market betas than low-growth portfolios, attempts to measure the relative durations of these portfolios must control for the differences in market exposure. Table 4 reveals a very different set of results when the market factor is added to the regression. The coefficients on the change in nominal interest rates are much smaller than those observed in Table 3. The t-statistics are also periodically insignificantly different from zero.

More importantly, a clear cross-sectional pattern emerges from Table 4. The small companies coefficients are all positive with some of the t-statistics being highly significant. This positive sign suggests a positive relationship (negative duration) between the movement of interest rates and share prices for small companies. As the companies' size increase, the coefficients decrease. In most cases the coefficients in the second quartile remains positive, however, their coefficients are much smaller than before inclusion of the market factor. The large companies become significantly negative, suggesting positive equity duration.

There are some evidence that the coefficients increase when moving from low- to high B/M and high- to low P/E. The trend, however, is much clearer when moving from small to large company portfolios. These findings are consistent with the results of Cornell (2000). Hevert et al. (1998), analyzing only two portfolios sorted on B/M, missed this fact.

They found that duration changes from positive to negative for high growth (low B/M) portfolios when the market factor is added as an explanatory variable. What Hevert et al. (1998) interprets as a B/M effect, is seen here to be a size effect when all thirty-two portfolios are considered.

These interpretations by Hevert et al. (1998) that high growth companies are less sensitive to interest rate changes may still have merit in that small companies tend to have more growth opportunities than larger companies. However, it must be related to size rather than P/E or B/M. The R^2 's are much higher, varying between 0.17 and 0.74 when the market factor is included (See Appendix 3).

The fifth regression as stated in Equation (5), shows that the results change once again when all three Fama and French's factors are included. Fama and French (1992, 1993, 1996) presented convincing evidence that equity returns are best captured by a three-factor model. These factors are the market factor, a size mimicking portfolio *SMB* and a book-to-market mimicking portfolio *HML*. *SMB* is calculated as the average monthly return on stocks in the two small company portfolios minus the average return on the two large company portfolios. Similarly, *HML* is the average monthly return on the highest book-to-market portfolios (in both the smallest and largest size groups) minus the average return on the lowest book-to-market portfolios.

In Table 5 the coefficients, with a few exceptions, are insignificantly different from zero. There is no longer evidence of size, book-to-market or price-earnings variation in the duration coefficients. The coefficients are randomly distributed about a mean value of -0.024 , indicating a slightly negative but both economically and statistically insignificant, equity duration.

TABLE 3: Coefficients and t-statistics for univariate regressions**PANEL A: Average monthly long-term government bond yields and book-to-market sorts**

	book-to-market			
	low	2	3	high
Large	-0.051559 (-5.7840)*	-0.040833 (-5.1595)*	-0.039007 (-4.9282)*	-0.031870 (-3.8850)*
2	-0.035534 (-3.6907)*	-0.034261 (-4.0953)*	-0.033162 (-4.0603)*	-0.028937 (-3.3941)*
3	-0.028388 (-3.6540)*	-0.023465 (-2.0368)*	-0.024064 (-2.6349)*	-0.030965 (-3.3591)*
Small	-0.031589 (-1.72682)	-0.020938 (-2.3324)*	0.0010366 (0.116611)	-0.012660 (-1.47085)

PANEL B: Month ending long-term government bond yields and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.038383 (-5.7739)*	-0.036977 (-6.4313)*	-0.035414 (-6.1465)*	-0.031447 (-5.2621)*
2	-0.033274 (-4.7098)*	-0.022566 (-3.5913)*	-0.030031 (-5.0107)*	-0.023910 (-3.7812)*
3	-0.016442 (-2.8089)*	-0.020521 (-2.3966)*	-0.006323 (-0.91744)	-0.018271 (-2.6362)*
Small	-0.013219 (-0.9652)	-0.017281 (-2.5883)*	-0.000165 (-0.02494)	-0.008392 (-1.30642)

PANEL C: Average monthly long-term government bond yields and price-earnings sorts

	price-earnings			
	high	2	3	low
Large	-0.046412 (-5.1889)*	-0.042289 (-5.0758)*	-0.045231 (-5.8700)*	-0.028943 (-3.7385)*
2	-0.034304 (-3.6697)*	-0.044274 (-5.0523)*	-0.029067 (-3.4768)*	-0.026120 (-3.2580)*
3	-0.019982 (-2.2079)*	-0.035741 (-3.2529)*	-0.028954 (-3.1976)*	-0.023431 (-2.8353)*
Small	-0.026520 (-1.86199)	-0.013197 (-1.36379)	-0.007870 (-0.94413)	-0.012937 (-1.40584)

PANEL D: Month ending long-term government bond yields and price earnings sorts

	price-earnings			
	high	2	3	low
Large	-0.036666 (-5.5346)*	-0.041268 (-6.9015)*	-0.033141 (-5.7548)*	-0.030973 (-5.5321)*
2	-0.031012 (-4.5069)*	-0.029198 (-4.4199)*	-0.023502 (-3.7863)*	-0.025502 (-4.3324)*
3	-0.014679 (-2.1747)*	-0.017592 (-2.1222)*	-0.020138 (-2.9751)*	-0.009055 (-1.45252)
Small	-0.020360 (-1.91808)	-0.007343 (-1.01613)	-0.007472 (-1.20357)	-0.001157 (-0.16795)

TABLE 4: Coefficients and t-statistics in the context of market model regressions

PANEL A: Average monthly long-term government bond yields and book-to-market sorts				
	book-to-market			
	low	2	3	high
Large	-0.019993 (-3.4967)*	-0.012769 (-2.5212)*	-0.011100 (-2.1710)*	-0.000936 (-0.2012)
2	-0.001793 (-0.28558)	-0.002274 (-0.49644)	-0.003080 (-0.63174)	0.000276 (0.04810)
3	-0.001040 (-0.20664)	0.010996 (1.22775)	0.003810 (0.54558)	-0.000465 (-0.07156)
Small	0.001941 (0.11156)	0.004612 (0.63737)	0.0261037 (3.62287)*	0.010495 (1.46111)
PANEL B: Month ending long-term government bond yields and book-to-market sorts				
	book-to-market			
	low	2	3	high
Large	-0.014554 (-3.40649)*	-0.016334 (-4.43197)*	-0.014870 (-3.98159)*	-0.008722 (-2.54617)*
2	-0.008355 (-1.79421)	0.001837 (0.53744)	-0.007754 (-2.14922)*	-0.002041 (-0.47599)
3	0.004603 (1.22939)	0.005261 (0.78572)	0.015694 (3.06586)*	0.005162 (1.06672)
Small	0.012962 (1.00018)	0.001879 (0.34780)	0.0187076 (3.4717487)*	0.009190 (1.71707)
PANEL C: Average monthly long-term government bond yields and price-earnings sorts				
	price-earnings			
	high	2	3	low
Large	-0.015290 (-2.59275)*	-0.011310 (-2.32008)*	-0.018079 (-3.62877)*	0.000128 (0.02894)
2	0.000243 (0.04383)	-0.012870 (-2.33628)*	0.001359 (0.26597)	0.001765 (0.33373)
3	0.010399 (1.65890)	-0.001452 (-0.17635)	0.000288 (0.04395)	0.002946 (0.48605)
Small	0.004437 (0.34170)	0.010452 (1.23551)	0.0145838 (2.0980637)*	0.015504 (2.22788)*
PANEL D: Month ending long-term government bond yields and price-earnings sorts				
	price-earnings			
	high	2	3	low
Large	-0.013344 (-3.04695)*	-0.018686 (-5.36750)*	-0.012599 (-3.37715)*	-0.009796 (-3.01581)*
2	-0.005371 (-1.30332)	-0.005174 (-1.24889)	-0.000674 (-0.17660)	-0.004941 (-1.25531)
3	0.008291 (1.77362)	0.009053 (1.47919)	0.002066 (0.42218)	0.011565 (2.58992)*
Small	0.002974 (0.30681)	0.010731 (1.70437)	0.0093632 (1.8007003)	0.021038 (4.14685)*

TABLE 5: Coefficients and t-statistics in the context of multi-factor regressions

PANEL A: Average monthly long-term government bond yields and book-to-market sorts				
	book-to-market			
	low	2	3	high
Large	-0.007434 (-1.81250)	-0.004090 (-1.06905)	-0.003768 (-0.89333)	0.003154 (0.77641)
2	0.006090 (1.13117)	0.002313 (0.53896)	0.000273 (0.06019)	0.003480 (0.63895)
3	-0.001016 (-0.19920)	0.001585 (0.18313)	-0.003205 (-0.47228)	-0.008843 (-1.45758)
Small	0.006536 (0.93698)	-0.002672 (-0.38784)	0.0163186 (2.4503589)*	-0.003888 (-0.69868)
PANEL B: Month ending long-term government bond yields and book-to-market sorts				
	book-to-market			
	low	2	3	high
Large	-0.000522 (-0.16557)	-0.005111 (-1.75575)	-0.005120 (-1.59470)	-0.002025 (-0.65245)
2	0.002806 (0.68125)	0.008626 (2.66789)*	-0.002104 (-0.60864)	0.004098 (0.98626)
3	0.006189 (1.59614)	-0.003937 (-0.59615)	0.009822 (1.90830)	-0.002260 (-0.48580)
Small	-0.006392 (-1.20117)	-0.007777 (-1.48401)	0.008621 (1.6842791)	-0.003186 (-0.74977)
PANEL C: Average monthly long-term government bond yields and price-earnings sorts				
	price-earnings			
	high	2	3	low
Large	-0.003379 (-0.76419)	-0.002700 (-0.72728)	-0.011371 (-2.78047)*	0.005230 (1.36169)
2	0.005861 (1.17297)	-0.006413 (-1.30139)	0.004394 (0.90813)	0.005456 (1.10160)
3	0.006286 (1.00075)	-0.011084 (-1.41593)	-0.004566 (-0.70381)	-0.003121 (-0.530910)
Small	0.000869 (0.09398)	0.000632 (0.07890)	0.0088083 (1.316548)	0.005388 (0.85304)
PANEL D: Month ending long-term government bond yields and price-earnings sorts				
	price-earnings			
	high	2	3	low
Large	0.000605 (0.17891)	-0.008196 (-2.93728)*	-0.002775 (-0.87635)	-0.002715 (-0.92373)
2	0.002968 (0.77662)	0.004289 (1.13879)	0.004999 (1.35543)	0.001171 (0.30892)
3	0.004286 (0.89293)	0.000809 (0.13479)	-0.001553 (-0.31310)	0.006831 (1.52750)
Small	-0.015226 (-2.17679)*	-0.000291 (-0.04750)	0.0012526 (0.2443146)	0.011074 (2.316900)*

The second regression as stated in Equation (2), is a variation of the first regression. It separates the change in nominal interest rate into real and inflation components. Table 6 shows the results when nominal interest rates are converted into real rates and inflation (See Appendix 5). Previous research has suggested that interest rate sensitivity may vary depending upon whether changes in interest rates are as a result of changes in real rates or changes in inflationary expectations. Because such a variation may influence equity cash flows in different ways, the distinction could be important.

The coefficient of both the change in real rates and the changes in the inflation rate are negative in virtually all cases, except for a few positive but not significant signs in the forth size quartile, consisting of the smallest companies. The results are also very similar irrespective of the use of average- or ending rates and sorting by B/M or P/E ratios. This becomes clear when comparing the different panels of Table 6.

The forth regression as stated in Equation (4), separates the change in nominal interest rate into its real rate and inflation components. From Table 7, the same pattern emerges then that of Table 4. Then including the market factor, a cross sectional pattern appears. The significant coefficients for both real rate- and inflation changes are negative, while the significant coefficients are positive for the small size quartile. Table 7 suggests that there is a negative relationship (positive duration) between the stock returns of larger companies and changes in real rates as well as inflation. In contrast smaller companies returns appears to be positively related to such changes. It appears that splitting the nominal interest rate changes into these two components, add little to the information already obtained from looking at Table 4.

In addition, Table 7 suggests that real interest rate sensitivity increases then moving from low- to high B/M and from high- to low P/E. Such a B/M-or P/E effect does not hold for the large company portfolios.

There is a slight indication that high B/M and low P/E companies are more sensitive to changes in inflation then low B/M and high P/E companies. With coefficients and t-statistics increasing for the intermediate size portfolios. Such a B/M or P/E effect does not hold for the large or small size portfolios.

Finally, the sixth regression as stated in Equation (6) separates the change in nominal interest rate into its real rate and inflation components. Table 8 shows how the results change once again when all three factors are included in the regression. Both the real interest rate- and the inflation coefficients are, with a few exceptions, insignificantly different from zero.

There is no evidence of a size, book-to-market or price earnings effect. The real interest rate- and inflation coefficients are randomly distributed about a mean value of 0.00125 and -0.00785 respectively. Despite the fact that they are opposite in sign, the equity duration are both economically and statistically insignificant.

TABLE 6: Coefficients and t-statistics for univariate regressions**PANEL A: Average monthly real interest rates and book-to-market sorts**

	low	book-to-market		high
		2	3	
Large	-0.018817 (-3.19351)*	-0.011393 (-2.18443)*	-0.012774 (-2.46230)*	-0.009226 (-1.73001)
2	-0.008450 (-1.35319)	-0.009756 (-1.79360)	-0.009213 (-1.73718)	-0.000154 (-0.02815)
3	-0.008976 (-1.78219)	-0.007442 (-1.01081)	-0.010270 (-1.76978)	-0.007444 (-1.25335)
Small	-0.010131 (-0.87478)	-0.009389 (-1.63641)	0.0017698 (0.3134559)	0.002042 (0.37253)

PANEL B: Average monthly inflation and book-to-market sorts

	low	book-to-market		high
		2	3	
Large	-0.027765 (-2.45059)*	-0.023060 (-2.29952)*	-0.021821 (-2.18743)*	-0.013155 (-1.28291)
2	-0.019076 (-1.58867)	-0.019865 (-1.89933)	-0.020995 (-2.05875)*	-0.025527 (-2.42704)*
3	-0.008393 (-0.86666)	-0.013818 (-0.97601)	-0.028078 (-2.51637)*	-0.022883 (-2.00370)*
Small	0.035944 (1.61408)	-0.007981 (-0.72346)	-0.0027716 (-0.2553008)	-0.008520 (-0.80820)

PANEL C: Month ending real interest rates and book-to-market sorts

	low	book-to-market		high
		2	3	
Large	-0.021140 (-3.99158)*	-0.017595 (-3.78172)*	-0.018333 (-3.96163)*	-0.015259 (-3.19353)*
2	-0.014528 (-2.58476)*	-0.010313 (-2.09128)*	-0.014220 (-2.98491)*	-0.004859 (-0.97953)
3	-0.007905 (-1.72658)	-0.010558 (-1.58268)	-0.005231 (-0.98772)	-0.007237 (-1.34159)
Small	-0.005281 (-0.50130)	-0.010883 (-2.094620)*	0.0008807 (0.1716365)	0.000750 (0.15049)

PANEL D: Month ending inflation and book-to-market sorts

	low	book-to-market		high
		2	3	
Large	-0.031348 (-2.78645)	-0.029031 (-2.93742)	-0.027410 (-2.78829)	-0.018792 (-1.85143)
2	-0.024676 (-2.06678)	-0.021210 (-2.02468)	-0.025817 (-2.55110)	-0.029271 (-2.77764)
3	-0.008375 (-0.86111)	-0.016976 (-1.19801)	-0.025034 (-2.22533)	-0.023408 (-2.04271)
Small	0.038851 (1.736110)	-0.010035 (-0.90920)	-0.0033126 (-0.3039142)	-0.009356 (-0.88383)

TABLE 6: (Continued)**PANEL E: Average monthly real interest rates and price-earnings sorts**

	high	price-earnings		low
		2	3	
Large	-0.016065 (-2.94531)*	-0.016025 (-3.13852)*	-0.006259 (-1.24458)	-0.003890 (-0.63862)
2	-0.011288 (-1.96055)	-0.010880 (-2.03355)*	-0.001787 (-0.34635)	-0.007535 (-1.30190)
3	-0.014006 (-1.98314)*	-0.007044 (-1.20764)	-0.006611 (-1.25072)	-0.007310 (-0.80718)
Small	-0.000875 (-0.07386)	-0.005586 (-0.90626)	0.0012858 (0.242471)	-0.001890 (-0.32271)

PANEL F: Average monthly inflation and price-earnings sorts

	high	price-earnings		low
		2	3	
Large	-0.023566 (-2.07623)*	-0.022397 (-2.13549)*	-0.023889 (-2.43320)*	-0.014655 (-1.51561)
2	-0.009602 (-0.81984)	-0.028715 (-2.59376)*	-0.027868 (-2.70893)*	-0.020046 (-2.02044)*
3	-0.009788 (-0.87953)	-0.021913 (-1.61360)	-0.019640 (-1.75124)	-0.021961 (-2.16085)*
Small	0.021653 (1.24354)	-0.000875 (-0.07386)	-0.0057459 (-0.5634993)	-0.012952 (-1.14997)

PANEL G: Month ending real interest rates and price-earnings sorts

	high	price-earnings		low
		2	3	
Large	-0.017270 (-3.25413)*	-0.023159 (-4.80109)*	-0.017958 (-3.91102)*	-0.013509 (-3.00015)*
2	-0.009867 (-1.79281)	-0.012234 (-2.34606)*	-0.013515 (-2.80034)*	-0.007689 (-1.64840)
3	-0.008312 (-1.58311)	-0.010798 (-1.67887)	-0.008476 (-1.60274)	-0.003775 (-0.78450)
Small	-0.008523 (-1.03667)	-0.004737 (-0.84567)	-0.0008766 (-0.1819113)	0.001380 (0.25930)

PANEL H: Month ending inflation and price-earnings sorts

	high	price-earnings		low
		2	3	
Large	-0.027917 (-2.47634)*	-0.029508 (-2.87971)*	-0.026904 (-2.75836)*	-0.020982 (-2.19353)*
2	-0.014700 (-1.25735)	-0.030510 (-2.75426)*	-0.030964 (-3.02019)*	-0.024889 (-2.51197)*
3	-0.011101 (-0.99534)	-0.020666 (-1.51261)	-0.021427 (-1.90745)	-0.020325 (-1.98840)*
Small	0.020015 (1.14597)	-0.000720 (-0.06049)	-0.007341 (-0.7171295)	-0.010534 (-0.93165)

TABLE 7: Coefficients and t-statistics in the context of market model regressions**PANEL A: Average monthly real interest rates and book-to-market sorts**

	book-to-market			
	low	2	3	high
Large	-0.009738 (-2.74326)*	-0.003359 (-1.06851)	-0.004830 (-1.52844)	-0.000553 (-0.19316)
2	0.001021 (0.26419)	-0.000793 (-0.28119)	-0.000776 (-0.25869)	0.008046 (2.33181)*
3	-0.001297 (-0.41971)	0.001999 (0.36137)	-0.002655 (-0.62081)	0.001068 (0.26768)
Small	-0.000552 (-0.05227)	-0.002346 (-0.52680)	0.0083691 (1.8508268)	0.008404 (1.90586)

PANEL B: Average monthly inflation and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.011887 (-1.74367)	-0.009010 (-1.49251)	-0.007928 (-1.30625)	0.002013 (0.36615)
2	-0.002511 (-0.33822)	-0.004189 (-0.77376)	-0.006238 (-1.08348)	-0.011186 (-1.68801)
3	0.005036 (0.84835)	0.002694 (0.25362)	-0.014760 (-1.79722)	-0.007996 (-1.04345)
Small	0.052698 (2.60097)*	0.004335 (0.50685)	0.0087699 (1.0099201)	0.002606 (0.30772)

PANEL C: Month ending real interest rates and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.009966 (-3.08145)*	-0.007774 (-2.73844)*	-0.008621 (-3.02278)*	-0.004610 (-1.77182)
2	-0.002868 (-0.812130)	0.000850 (0.329520)	-0.003838 (-1.40499)	0.005317 (1.67621)
3	0.001695 (0.59985)	0.001156 (0.22849)	0.004388 (1.12399)	0.003401 (0.93346)
Small	0.006804 (0.70588)	-0.002159 (-0.52998)	0.0091696 (2.2239909)*	0.008732 (2.16967)*

PANEL D: Month ending inflation and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.013049 (-1.90996)	-0.012949 (-2.15908)*	-0.011504 (-1.90950)	-0.001352 (-0.24597)
2	-0.005582 (-0.74814)	-0.002929 (-0.53779)	-0.008814 (-1.52746)	-0.012605 (-1.88093)
3	0.007347 (1.23068)	0.002207 (0.20648)	-0.009281 (-1.12526)	-0.005986 (-0.77770)
Small	0.058642 (2.87989)*	0.004253 (0.49425)	0.010262 (1.1781981)	0.003715 (0.43704)

TABLE 7: (Continued)**PANEL E: Average monthly real interest rates and price-earnings sorts**

	high	price-earnings		low
		2	3	
Large	-0.004404 (-1.20102)	-0.007281 (-2.42777)*	-0.008195 (-2.64177)*	0.001887 (0.692230)
2	0.005867 (1.730180)	-0.002325 (-0.68329)	-0.002491 (-0.79886)	0.006010 (1.87019)
3	0.000775 (0.19966)	-0.004462 (-0.88097)	0.001114 (0.27621)	0.000667 (0.17939)
Small	0.001446 (0.18307)	0.000868 (0.16642)	0.0073655 (1.7151967)	0.005806 (1.34655)

PANEL F: Average monthly inflation and price-earnings sorts

	high	price-earnings		low
		2	3	
Large	-0.007940 (-1.12751)	-0.007035 (-1.22142)	-0.010194 (-1.71131)	-0.000409 (-0.07809)
2	0.007461 (1.14583)	-0.013040 (-1.995330)*	-0.013196 (-2.20405)*	-0.006409 (-1.03843)
3	0.004744 (0.63679)	-0.005222 (-0.53685)	-0.005373 (-0.69354)	-0.009233 (-1.29281)
Small	0.036966 (2.43723)*	0.010411 (1.03953)	0.0048868 (0.5925768)	0.000508 (0.06135)

PANEL G: Month ending real interest rates and price-earnings sorts

	high	price-earnings		low
		2	3	
Large	-0.006271 (-1.87767)	-0.012464 (-4.68565)*	-0.008317 (-2.94133)*	-0.003530 (-1.42004)
2	0.002196 (0.70455)	-0.001098 (-0.35243)	-0.003144 (-1.10382)	0.001933 (0.65361)
3	0.002043 (0.57605)	0.001159 (0.24992)	0.001675 (0.45412)	0.005393 (1.59355)
Small	0.002382 (0.32987)	0.003348 (0.70263)	0.0067187 (1.7107007)	0.011130 (2.858210)*

PANEL H: Month ending inflation and price-earnings sorts

	high	price-earnings		low
		2	3	
Large	-0.009904 (-1.40384)	-0.011992 (-2.13417)*	-0.011116 (-1.86088)	-0.004638 (-0.88333)
2	0.005055 (0.76780)	-0.012272 (-1.86521)	-0.013979 (-2.32343)*	-0.009132 (-1.46182)
3	0.005856 (0.78179)	-0.001084 (-0.11058)	-0.004804 (-0.61652)	-0.005311 (-0.74295)
Small	0.037875 (2.48254)*	0.012521 (1.24389)	0.0050977 (0.6144233)	0.005433 (0.66047)

TABLE 8: Coefficients and t-statistics in the context of multi-factor regressions**PANEL A: Average monthly real interest rates and book-to-market sorts**

	book-to-market			
	low	2	3	high
Large	-0.006082 (-2.45288)*	-0.001426 (-0.61206)	-0.003330 (-1.30119)	-0.000227 (-0.09257)
2	0.002458 (0.75047)	0.000153 (0.05868)	-0.000489 (-0.17775)	0.008323 (2.56460)*
3	-0.001647 (-0.53363)	-0.001247 (-0.23709)	-0.004945 (-1.20998)	-0.001750 (-0.47427)
Small	0.008198 (1.94940)	-0.004132 (-0.98823)	0.0052125 (1.2763475)	0.003224 (0.95372)

PANEL B: Average monthly inflation and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.005495 (-1.14971)	-0.001207 (-0.26873)	-0.000723 (-0.14647)	0.008567 (1.81191)
2	0.005820 (0.92196)	0.000049 (0.00981)	-0.000837 (-0.15769)	-0.005732 (-0.91620)
3	0.007015 (1.17898)	0.000611 (0.06028)	-0.017016 (-2.15987)*	-0.009491 (-1.33401)
Small	0.014216 (1.75362)	-0.001186 (-0.14718)	0.0046564 (0.5914799)	0.001499 (0.23012)

PANEL C: Month ending real interest rates and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.003360 (-1.45631)	-0.002673 (-1.24563)	-0.004267 (-1.81149)	-0.001824 (-0.80638)
2	0.001949 (0.64456)	0.003650 (1.52125)	-0.001517 (-0.59733)	0.007817 (2.60999)*
3	0.002127 (0.74678)	-0.003467 (-0.71464)	0.001000 (0.26414)	-0.000403 (-0.11811)
Small	0.002392 (0.61170)	-0.006442 (-1.67496)	0.0040319 (1.0681965)	0.002363 (0.75678)

PANEL D: Month ending inflation and book-to-market sorts

	book-to-market			
	low	2	3	high
Large	-0.004022 (-0.82400)	-0.002436 (-0.53659)	-0.001943 (-0.38993)	0.007203 (1.50549)
2	0.005719 (0.89378)	0.002990 (0.58906)	-0.001760 (-0.32747)	-0.005059 (-0.79847)
3	0.009951 (1.65129)	-0.001407 (-0.13711)	-0.012701 (-1.58657)	-0.008596 (-1.19178)
Small	0.010445 (1.26277)	-0.003659 (-0.44973)	0.0043561 (0.5455229)	0.001205 (0.18239)

TABLE 8: (Continued)**PANEL E: Average monthly real interest rates and price-earnings sorts**

	price-earnings			
	high	2	3	low
Large	-0.001143 (-0.42498)	-0.005343 (-2.39703)*	-0.006914 (-2.78247)*	0.002724 (1.16714)
2	0.006800 (2.26924)*	-0.000921 (-0.30725)	-0.002333 (-0.79528)	0.006433 (2.15601)*
3	-0.000644 (-0.16844)	-0.007788 (-1.63895)	-0.000751 (-0.19033)	-0.001427 (-0.40095)
Small	0.004509 (0.80478)	-0.001975 (-0.40625)	0.0061634 (1.5186833)	0.002727 (0.71092)

PANEL F: Average monthly inflation and price-earnings sorts

	price-earnings			
	high	2	3	low
Large	-0.000704 (-0.13566)	0.000225 (0.05232)	-0.002716 (-0.56709)	0.005471 (1.21597)
2	0.014157 (2.45081)*	-0.006790 (-1.17508)	-0.008246 (-1.45817)	-0.001005 (-0.17474)
3	0.003385 (0.45914)	-0.006765 (-0.73852)	-0.004987 (-0.65585)	-0.010317 (-1.50338)
Small	0.012887 (1.19317)	0.005298 (0.56533)	-0.0009236 (-0.1180592)	-0.004039 (-0.54625)

PANEL G: Month ending real interest rates and price-earnings sorts

	price-earnings			
	high	2	3	low
Large	0.000239 (0.09607)	-0.007664 (-3.78667)*	-0.004056 (-1.75160)	-0.000404 (-0.18711)
2	0.005880 (2.12263)*	0.002983 (1.08007)	-0.001102 (-0.40633)	0.004504 (1.62824)
3	-0.000100 (-0.02843)	-0.003252 (-0.73794)	-0.000333 (-0.091360)	0.002673 (0.81403)
Small	-0.003307 (-0.63898)	-0.001888 (-0.42071)	0.0031577 (0.8399559)	0.006018 (1.70757)

PANEL H: Month ending inflation and price-earnings sorts

	price-earnings			
	high	2	3	low
Large	0.000300 (0.05713)	-0.002416 (-0.56433)	-0.001239 (-0.25292)	0.003217 (0.70360)
2	0.014284 (2.43711)*	-0.003650 (-0.62485)	-0.007524 (-1.31186)	-0.001770 (-0.30251)
3	0.003754 (0.50254)	-0.004001 (-0.42916)	-0.004737 (-0.61471)	-0.007080 (-1.01920)
Small	0.006952 (0.63490)	0.005111 (0.53818)	-0.0026232 (-0.3298371)	-0.000931 (-0.12492)

4.3 Implications

The results from this study suggest that close attention must be paid to the context in which equity duration is evaluated. This is because the empirical estimates of equity duration are influenced by the specifications of the regression model used. Applying simple univariate regressions suggest positive duration for common equities. This negative relationship between equity returns and changes in nominal interest rates are independent of the size, book-to-market or price-earnings ratios of the sampled companies.

Including the market factor as an independent variable results in markedly different equity duration. It is clear that the duration of equity is correlated with size, as both coefficients and t-statistics increases when moving from small companies to larger companies. In addition, it is found that the small companies have negative not positive duration, as was the case for simple univariate regressions. There is also some evidence that the high growth portfolios, as measured by low B/M and high P/E ratios, are less sensitive to interest rate changes than low growth (high B/M and low P/E portfolios).

Employing all three Fama and French's factors, the duration changes once again. There are no longer a cross-sectional dependence on company size, with the mean duration being close to zero and statistically insignificant in virtually all cases. In the context of multi-factor regression, there is no evidence of any significant equity duration.

Also this study support findings by Hevert et al. (1998) that dividing changes in nominal interest rate into changes in real rates and changes in inflation, does not significantly affect the estimates of equity duration. In the case of single univariate regressions both the coefficients of changes in real rates and changes in inflation are negative, suggesting positive duration that are independent of size, book-to-market or price-earnings ratios.

When the market factor is introduced the same cross sectional pattern appears for both changes in real rates and inflation. Findings suggest a negative relationship (positive duration) between the stock returns of larger companies and changes in real rates as well as inflation changes. In contrast, smaller companies' returns appear to be positively related to such changes. When including all three Fama and French factors, both real interest rate- and inflation coefficients are, with a few exceptions, insignificantly different from zero.

4.4 Relationship between Fama and French factors and changes in nominal interest rates

The fact that equity duration disappears in the context of multi-factor regressions suggest that changes in nominal interest rates are related with at least one of the Fama and French factors: R_M , SMB and HML .

The first column in Table 9 shows the coefficients and t-statistics when HML is regressed on changes in nominal interest rates. In the case of month ending nominal interest rates (Panel B), the coefficients and t-statistics are insignificant. There are thus no relationship between HML and month ending nominal interest rates. This finding is inline with the fact that there is no real relationship between estimated coefficients and the book-to-market ratio in the context of the market model regression (See Table 4, Panel B)

The second column in Table 9 shows the coefficients and t-statistics when SMB is regressed on nominal interest rates. The coefficients and t-statistics are positive and significant for both average monthly nominal interest rates as well as month ending nominal interest rates. This significant relationship between SMB and nominal interest rates explains why the size pattern visible in Table 4 disappears in the context of multi-factor regression (Table 5). The positive sign of the coefficients imply that then nominal interest rates increase, small companies will outperform larger companies (SMB is positive). This is again inline with equity duration being negative for small companies and rising along with company size, as seen in Table 4.

The third column in Table 9 confirms that the most significant relationship is between the market factor and nominal interest rates. The coefficients and t-statistics are -0.029336 and $(-4.49425)^*$ for average monthly nominal interest rates and -0.022134 and $(-4.55219)^*$ for month ending nominal interest rates. This result suggests that interest rates main impact on stock prices are through the market factor. This leads to a significant positive duration that is the same for all common equities, independent of size, book-to-market or price-earnings.

Excluding Fama and French SMB factor, one sees the relationship between stock returns and interest rate change to be significantly related to size. However, this may be either because small and large companies have different equity duration's or simply because the result stems from an improperly specified regression model that excludes SMB as an independent variable.

TABLE 9: Fama and French factors regressed on nominal interest rates

PANEL A: Average monthly long-term government bond yields		
HML	SMB	R _M
0.039475	0.014851	-0.029336
(2.0054)*	(2.846545)*	(-4.49425)*
PANEL B: Month ending long-term government bond yields		
HML	SMB	R _M
0.010820	0.018680	-0.022134
(0.732155)	(4.95249)*	(-4.55219)*

CHAPTER 5

5. CONCLUSIONS

The main objective of this study was to provide insight into the interest rate sensitivity of South African growth companies. This was done by exploring equity duration as a tool to assist investment managers to manage interest rate risk better and to achieve higher returns on their portfolios by knowing in which type of equities to invest in the current interest rate environment.

An explanation of the historical development of duration and its application in fixed income securities were provided. Duration was shown to be a better measure of the effective average maturity of a bond's payments, then time to maturity. But more importantly duration's use as a measure of the interest rate sensitivity of a bond portfolio was discussed. The use of duration as a tool in immunizing bonds from interest rate risk also received attention.

One of the aims of this research was to try and resolve the conflict between predictions based on discounted cash flow techniques and predictions based on growth option theory concerning the sensitivity of equity prices to changes in interest rates.

The traditional discounted cash flow techniques suggested that growth companies would be more sensitive to interest rate changes (have higher duration's) than low-growth companies because growth companies distant cash flows are relatively greater than their current cash flows.

Growth option theory suggests that growth companies may be less sensitive to interest rate changes (have lower duration's) than non-growth companies. This is because growth opportunities are distinct from assets in place, in that the company has committed capital to the latter but not to the former. These companies therefore have the option to make future investments, and will do so only if conditions are right.

Hevert et al. (1998) argued that this choice to undertake future projects, makes growth opportunities akin to call options. Option pricing theory suggests that the values of call options will increase with interest rates. Under certain circumstances growth companies were found to have lower duration than non-growth companies. It was argued that it is inappropriate to use discounted cash flow techniques to value assets with a substantial option component. Cornell (2000) however, argued that growth options are a good deal more complex than stock options. Kadiyala (2000) accentuate this by distinguishing between financial- and real options.

The complexities introduced by the presence of real options makes it very difficult to calculate equity duration theoretically. However, empirical studies of equity duration that estimate the sensitivity of equity prices to changes in interest rates may cause a problem in it self.

The results obtained from Table 3 may be misleading to the extent that changes in nominal interest rates are correlated with other variables not included in these simple univariate regressions. What may seem to be equity duration could be the result of fluctuations in interest rates serving as a proxy for fluctuations in the market or other factors that have an influence on equity prices.

How the estimates of the response of equity prices to interest rate changes evolve from univariate- to market model- to multifactor regressions, are clearly visible from Table 3 through to Table 5.

In support of the research conducted by Cornell (2000) the author has found that evidence for a relationship between equity returns and interest rate change depends critically on the explanatory variables used. There is no evidence of any significant duration in the context of the Fama and French model.

GLOSSARY

COMMON STOCK. Equities, or equity securities, issued as ownership shares in a publicly held corporation. Shareholders have voting rights and may receive dividends based on their proportionate ownership.

DURATION. A measure of the average life of a bond, defines as the weighted average of the times until each payment is made, with weights proportional to the present value of payment.

EQUITY DURATION. The percentage change in stock price that results from a 100-basis-point change in the discount rate for equity.

GROWTH COMPANIES. A growth company has the opportunities and ability to invest capital in projects that generate rates of return greater than the firm's cost of capital.

GROWTH OPPORTUNITIES. Those investment opportunities which offers above-market returns. Growth opportunities represent the value of investment projects that have not yet been undertaken but that the company is expected to have the opportunity to undertake in the future.

IMMUNIZATION. A strategy that matches durations of assets and liabilities so as to make net worth unaffected by interest rate movements.

INTEREST RATE RISK. A general term used to describe the sensitivity of security value to interest rate fluctuations.

PRICE/EARNINGS RATIO. The ratio of a stock's price to its earnings per share. Also referred to as the P/E Multiple.

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APPENDIXES

APPENDIX 1:**LIST OF COMPANIES AVAILABLE FOR INCLUSION**

TOTAL NUMBER OF COMPANIES	NAME OF LISTED COMPANY	
1	ABACUS TECHNOLOGY HOLDINGS LTD	ABACUS
2	ABC CASH PLUS LTD	ABCPLUS
3	ABSA GROUP LTD	ABSA
4	ACCORD TECHNOLOGIES LTD	ACCORD
5	ACUITY GROUP HOLDINGS LTD	ACUITY
6	ADCORP HOLDINGS LTD	ADCORP
7	ADMIRAL LEISURE WORLD LTD	ADMIRAL
8	ADONIS KNITWEAR HOLDINGS LTD	ADONIS
9	ADVANCED TECHNICAL SYSTEMS LTD	ADVANCED
10	ADVTECH LTD	ADVTECH
11	AECI LTD	AECI
12	AFRIBRAND HOLDINGS LTD	AFBRAND
13	AFRICA GLASS INDUSTRIES LTD	AFGLASS
14	AFRICAN & OVERSEAS ENTERPRISES LTD	AF-&-OVER
15	AFRICAN BANK INVESTMENTS LTD	ABIL
16	AFRICAN HARVEST LTD	AFHARV
17	AFRICAN LIFE ASSURANCE COMPANY LTD	AFLIFE
18	AFRICAN MEDIA ENTERTAINMENT LTD	AME
19	AFRICAN OXYGEN LTD	AFROX
20	AFROX HEALTHCARE LTD	AHEALTH
21	ALACRITY FINANCIAL SERVICES LTD	ALACRITY
22	ALEX WHITE HOLDINGS LTD	ALEXWYT
23	ALEXANDER FORBES LTD	ALEXFBS
24	ALL JOY FOODS LTD	ALLJOY
25	ALLAN GRAY PROPERTY TRUST	GRAYPROP
26	ALLIANCE PHARMACEUTICALS LTD	ALIANCE
27	ALLIED ELECTRONICS CORPORATION LTD	ALTRON
28	ALLIED TECHNOLOGIES LTD	ALTECH
29	ALUDIE LTD	ALUDIE
30	AMALGAMATED APPLIANCE HOLDINGS LTD	AMAPS
31	AMALGAMATED BEVERAGE INDUSTRIES LTD	ABI
32	AMB HOLDINGS LTD	AMB
33	AMB PRIVATE EQUITY PARTNERS LTD	AMBPEP
34	AMLAC LTD	AMLAC
35	ANBEECO INVESTMENTS HOLDINGS LTD	ANBEECO
36	ANGLOVAAL INDUSTRIES LTD	A-V-I
37	APEXHI PROPERTIES A LTD	APEXHIA
38	APPLETON LTD	APPLETON
39	APS TECHNOLOGIES LTD	APSTECH
40	AQUA ONLINE HOLDINGS LTD	AQUA
41	AQUILA GROWTH LTD	AQUILA
42	ARCAY GROUP LTD	ARCAY
43	ARGENT INDUSTRIAL LTD	ARGENT
44	ARNOLD PROPERTY FND	A-PROP
45	ASPEN PHARMACARE HOLDINGS LTD	ASPEN
46	AST GROUP LTD	AST GROUP
47	ASTRAL FOODS LTD	ASTRAL
48	ASTRAPAK LTD	ASTRAPAK
49	ATLAS PROPERTIES LTD	ATLAS
50	AUTOQUIP GROUP LTD	AUTOQIP
51	AVENG LTD	AVENG
52	AVIS SOUTHERN AFRICA LTD	AVIS

53	AWETHU BREWERIES LTD	AWETHU
54	BARLOWORLD LTD	BARWORLD
55	BARNARD JACOBS MELLET HOLDINGS LTD	BJM
56	BASIL READ HOLDINGS LTD	BASREAD
57	BEARING MAN LTD	BEARMAN
58	BEIGE HOLDINGS LTD	BEIGE
59	BELL EQUIPMENT LTD	BELL
60	BICC CAFCA LTD	BICAF
61	BIDVEST GROUP LTD	BIDVEST
62	BOE LTD	BOE
63	BONATLA PROPERTY HOLDINGS LTD	BONATLA
64	BOWLER METCALFE LTD	BOWCALF
65	BRAIT SA	BRAIT
66	BRANDCORP HOLDINGS LTD	BRANDCO
67	BRIDGESTONE FIRESTONE MAXIPREST LTD	BRIDGESTN
68	BRIMSTONE INVESTMENT CORPORATION LTD	BRIMSTON
69	BRYANT TECHNOLOGY LTD	BRYANT
70	BUILDMAX LTD	BUILDMAX
71	BURLINGTON INDUSTRIES LTD	BURLINGTN
72	BYTES TECHNOLOGY GROUP LTD	BTG
73	CADIZ HOLDINGS LTD	CADIZ
74	CANADIAN OVERSEAS PACKAGING INDUSTRIES LTD	COPI
75	CAPE EMPOWERMENT TRUST LTD	CAPEMP
76	CAPITAL ALLIANCE HOLDINGS LTD	CAPTALL
77	CAPITAL PROPERTY FUND	CAPITAL
78	CARGO CARRIERS LTD	CARGO
79	CASEY INVESTMENT HOLDINGS LTD	CASEY
80	CASHBUILD LTD	CASHBIL
81	CAXTON PUBLISHERS AND PRINTERS LTD	CAXTON
82	CBD PROPERTY FUND	CBD-FUND
83	CCI GROUP LTD	CCG
84	CEMENTATION COMPANY (AFRICA) LTD	CEMENCO
85	CENMAG HOLDINGS LTD	CENMAG
86	CENTRAL INFORMATION HOLDINGS LTD	CIH
87	CENTRECITY PROPERTY FUND	CENPROP
88	CERAMIC INDUSTRIES LTD	CERAMIC
89	CHARIOT LAND LTD	CHARLAND
90	CHEMICAL SERVICES LTD	CHEMSERVE
91	CHESTER INVESTMENT HOLDINGS LTD	CHESTER
92	CHOICE HOLDINGS LTD	CHOICE
93	CITY LODGE HOTELS LTD	CITYLDG
94	CLIENTELE LIFE ASSURANCE COMPANY LTD	CLIENTELE
95	COASTAL GROUP LTD	COASTAL
96	COMAIR LTD	COMAIR
97	COMBINED MOTOR HOLDINGS LTD	CMH
98	COMMAND HOLDINGS LTD	COMMAND
99	COMMERCIAL FINANCE COMPANY LTD	CFC
100	COMMUNITY TECHNOLOGIES LTD	C-TECH
101	COMPAREX HOLDINGS LTD	COMPAREX
102	COMPU-CLEARING OUTSOURCING LTD	COMPCLEAR
103	CONAFEX HOLDINGS SOCIETE ANONYME	CONAFEX
104	CONCOR LTD	CONCOR
105	CONGELLA FEDERATION LTD	CONFED
106	CONNECTION GROUP HOLDINGS LTD	CONNECT
107	CONSOLIDATED PROPERTY & FINANCE LTD	PROPFIN
108	CONTROL INSTRUMENTS GROUP LTD	CONTROL
109	CORE HOLDINGS LTD	CORE
110	CORONATION HOLDINGS LTD	COROHLD
111	CORPCAPITAL LTD	CORPCAP
112	CORWIL INVESTMENTS LTD	CORWIL
113	CROOKES BROTHERS LTD	CROOKES
114	CRUX TECHNOLOGIES LTD	CRUX

115	CS COMPUTER SERVICES HOLDINGS LTD	CSHOLDING
116	CTP HOLDINGS LTD	CTP
117	CULLINAN HOLDINGS LTD	CULLINAN
118	CYBERHOST LTD	CYBERHOST
119	CYCAD FINANCIAL HOLDINGS LTD	CYCAD
120	DAEWOO ELECTRONICS SA LTD	DAEWOO
121	DATACENTRIX HOLDINGS LTD	DCENTRIX
122	DATATEC LTD	DATATEC
123	DECILLION LTD	DECILLION
124	DECTRONIC LTD	DECTRONIC
125	DELTA ELECTRICAL INDUSTRIES LTD	DELTA
126	DIAL-A-MOVIE LTD	DIALMOV
127	DIGICORE HOLDINGS LTD	DIGICOR
128	DIMENSION DATA HOLDINGS PLC	DIDATA
129	DISCOVERY HOLDINGS LTD	DISCOVERY
130	DISTELL GROUP LIMITED	DISTELL
131	DISTRIBUTION & WAREHOUSING NETWORK LTD	DAWN
132	DNA SUPPLY CHAIN INVESTMENTS LTD	DNA SUP
133	DON GROUP LTD	DON
134	DORBYL LTD	DORBYL
135	DUNLOP AFRICA LTD	DUNLOP
136	DYNAMIC CABLES RSA LTD	DYNAMIC
137	DYNAMO RETAIL LTD	DYNAMO
138	EC-HOLD LTD	ECHOLD
139	E-DATA HOLDINGS LTD	EDATA
140	EDGARS CONSOLIDATED STORES LTD	EDCON
141	ELB GROUP LTD	ELBGROUP
142	ELEXIR TECHNOLOGY HOLDINGS LTD	ELEXIR
143	ELLERINE HOLDINGS LTD	ELLERINE
144	ENERGY AFRICA LTD	ENERGY
145	ENTERPRISE OUTSOURCING HOLDINGS LTD	EOH
146	ENVIROSERV HOLDINGS LTD	ENSERVE
147	ERP.COM HOLDINGS LTD	ERP.COM
148	ESSENTIAL BEVERAGE HOLDINGS LTD	ESSENT
149	EUREKA INDUSTRIAL LTD	EUREKA
150	EXCELLERATE HOLDINGS LIMITED	EXCELL
151	EXPLORER CORPORATION HOLDINGS LTD	EXPLORER
152	FAIRVEST PROPERTY HOLDINGS LTD	FAIRVEST
153	FARITEC HOLDINGS LTD	FARITEC
154	FASHION AFRICA LTD	FASHAF
155	FBC FIDELITY BANK HOLDINGS LTD	FBCFID
156	FE SQUARED HOLDINGS LTD	FESQUARED
157	FEDSURE HOLDINGS LTD	FEDSURE
158	FIRSTRAND LTD	FIRSTRAND
159	FORIM HOLDINGS LTD	FORIM
160	FORTUNE BEVERAGES LTD	FORTUNE
161	FORZA GROUP LTD	FORZA
162	FOSCHINI LTD	FOSCHINI
163	FRONTRANGE LTD	FRONTRNGE
164	FURNEX CAPITAL LTD	FURNCAP
165	GENBEL SOUTH AFRICA LTD	GENBEL
166	GILBOA PROPERTIES LTD	GILBOA
167	GLENRAND MIB LTD	GLENMIB
168	GLOBAL TECHNOLOGY LTD	GLOTEC
169	GLOBAL VILLAGE HOLDINGS LTD	GLOVIL
170	GLODINA HOLDINGS LTD	GLODINA
171	GOLD EDGE HOLDINGS LTD	GOLDEDGE
172	GOLD REEF CASINO RESORTS LTD	GOLDREEF
173	GOOD CAPE LTD	GOODCAP
174	GRINDROD LTD	GRINDROD
175	GRINTEK LTD	GRINTEK
176	GROUP FIVE LTD	GROUP-5

177	GROWTHPOINT PROPERTIES LTD	GROWPNT
178	GUBB AND INGGS LTD	GUBINGS
179	HERITAGE COLLECTION HOLDINGS LTD	HERCOL
180	HICOR LTD	HICORL
181	HIGHVELD STEEL & VANADIUM CORPORATION LTD	HIVELD
182	HOMECHOICE HOLDINGS LTD	HOMECHOIC
183	HOSKEN CONS INVESTMENTS LTD	HCI
184	HOWDEN AFRICA HOLDINGS LTD	HOWDEN
185	HUDACO INDUSTRIES LTD	HUDACO
186	HUNT LEUCHARS & HEPBURN HOLDINGS LTD	HLH
187	HYPROP INVESTMENTS LTD	HYPROP
188	IDION TECHNOLOGY HOLDINGS LTD	IDION
189	IFANET LTD	IFANET
190	ILIAD AFRICA LTD	ILIAD
191	ILLOVO SUGAR LTD	ILLOVO
192	IMPERIAL HOLDINGS LTD	IMPERIAL
193	IMPERILOG LTD	IMPERILOG
194	IMR INVESTMENTS LTD	IMR
195	INCENTIVE HOLDINGS LTD	INCENT
196	INDEPENDENT FINANCIAL SERVICES LTD	INDFIN
197	INDEQUITY GROUP LTD	INDEQTY
198	INFOWAVE HOLDINGS LTD	INFOWAVE
199	INMINS LTD	INMINS
200	INSURANCE OUTSOURCING MANAGERS HOLDINGS LTD	INSURE
201	INTEGREAR LTD	INTEGREAR
202	INTERCONNECTIVE SOLUTIONS LTD	ISOLUTION
203	INTERTRADING LTD	INTRADING
204	INTERVID LTD	INTERVID
205	INVESTEC GROUP LTD	INVSTEC
206	INVESTEC HOLDINGS LTD	INHOLD
207	INVESTMENT SOLUTIONS HOLDINGS LTD	SOLUTNS
208	INVICTA HOLDINGS LTD	INVICTA
209	IOTA FINANCIAL SERVICES LTD	IOTA
210	IPROP HOLDINGS LTD	IPROP
211	ISCOR LTD	ISCOR
212	IST GROUP LTD	IST
213	ITALTILE LTD	ITLTILE
214	JASCO ELECTRONICS HOLDINGS LTD	JASCO
215	JD GROUP LTD	JDGROUP
216	JEM TECHNOLOGY HOLDINGS LTD	JEMTECH
217	JIGSAW HOLDINGS LTD	JIGSAW
218	JOHNNIC COMMUNICATIONS LTD	JOHNCOM
219	JOHNNIC HOLDINGS LTD	JOHNNIC
220	KAGISO MEDIA LTD	KGMEDIA
221	KAIROS INDUSTRIAL HOLDINGS LTD	KAIROS
222	KERSAF INVESTMENTS LTD	KERSAF
223	KING CONSOLIDATED HOLDINGS LTD	KING
224	KIRCHMANN-HURRY PROPERTIES LTD	KH-PROPS
225	KOLOSUS HOLDINGS LTD	KOLOSUS
226	KUNENE TECHNOLOGY LTD	KTL
227	KWV BELEGGINGS BPK	KWV-BEL
228	LA GROUP LTD	LA-GROUP
229	LABAT AFRICA LTD	LABAT
230	LASER GROUP LTD	LASER
231	LEISURENET LTD	LESRNET
232	LIBERTY GROUP LTD	LIBERTY
233	LIBERTY HOLDINGS LTD	LIB-HOLD
234	LIBERTY INTERNATIONAL PLC	LIBINT
235	LONDON FINANCE & INVESTMENT GROUP PLC	LONFIN
236	LONRHO AFRICA PLC	LONAFRIC
237	LYONS FINANCIAL SOLUTIONS HOLDINGS LTD	LYONS
238	M CUBED HOLDINGS LTD	MCUBED

239	MALBAK LTD	MALBAK
240	MARRIOTT PROPERTY FUND	MARTPROP
241	MARSHALLS LTD	MARSHALLS
242	MASONITE (AFRICA) LTD	MASONITE
243	MASSMART HOLDINGS LTD	MASSMART
244	MASTERFRIDGE LTD	FRIDGEM
245	MATHOMO GROUP LTD	MATHOMO
246	MAXTEC LTD	MAXTEC
247	MB TECHNOLOGIES LTD	MBTECH
248	MC CARTHY LTD	MCCARTHY
249	M-CELL LTD	M-CELL
250	MEDI-CLINIC CORPORATION LTD	MEDCLIN
251	MERCANTILE LISBON BANK HOLDINGS LTD	MRCANTIL
252	METAIR INVESTMENTS LTD	METAIR
253	METBOARD PROPERTIES LTD	METPROL
254	METJE & ZIEGLER LTD	METJE-&-Z
255	METRO CASH & CARRY LTD	METCASH
256	METTLE LTD	METTLE
257	MGX HOLDINGS LTD	MGX
258	MICROLOGIX LTD	MICROLOGX
259	MICROMEGA HOLDINGS LTD	MMG
260	MIDAS LTD	MIDAS
261	MIH HOLDINGS LTD	MIHH
262	MILLENNIUM PROPERTY HOLDINGS LTD	MILPROP
263	MILLIONAIR CHARTER LTD	MILLAIR
264	M-NET SUPERSPORT INTERNATIONAL HOLDINGS LTD	M-NETSS
265	MOBILE INDUSTRIES LTD	MOBILE
266	MOLOPE GROUP LTD	MOLOPE
267	MONEY WEB HOLDINGS LTD	MONEYWB
268	MONTEAGLE SOCIETE ANONYME	MT-EAGLE
269	MORIBO LEISURE LTD	MORIBO
270	MOULDED MEDICAL SUPPLIES LTD	MOULDMED
271	MR PRICE GROUP LIMITED	MR PRICE
272	MURRAY & ROBERTS HOLDINGS LTD	M&R-HLD
273	MUSTEK LTD	MUSTEK
274	MUTUAL & FEDERAL INSURANCE COMPANY LTD	M-&-F
275	NAMIBIAN FISHING INDUSTRIES LTD	NAMFISH
276	NAMIBIAN SEA PRODUCTS LTD	NAMSEA
277	NAMPAK LTD	NAMPAK
278	NANDOS GROUP HOLDINGS LTD	NANDOS
279	NASPERS LTD N	NASPERS
280	NATIONAL CHICK LTD	NATCHIX
281	NATIONAL SPORTING INDEX LTD	NSI
282	NATURAL HEALTH HOLDINGS LTD	NATURAL
283	NEDCOR INVESTMENT BANK HOLDINGS LTD	NIBH
284	NEDCOR LTD	NEDCOR
285	NET 1 APPLIED TECHNOLOGY HOLDINGS LTD	APLITEC
286	NETACTIVE LTD	NETACT
287	NETWORK HEALTHCARE HOLDINGS LTD	NETCARE
288	NEW AFRICA CAPITAL LIMITED	NAC
289	NEW AFRICA INVESTMENTS LTD	NAIL
290	NEW CLICKS HOLDINGS LTD	NUCLICKS
291	NEXTTVEST HOLDINGS LTD	NEXVEST
292	NICTUS LTD	NICTUS
293	NINIAN & LESTER HOLDINGS LTD	NINIAN
294	NORTHERN ENGINEERING INDUSTRIES (AFRICA) LTD	NEI-AFR
295	NOVA EDUCATION AND TECHNOLOGY HOLDINGS LTD	EDUTECH
296	NRB HOLDINGS LTD	NRB
297	NU-WORLD HOLDINGS LTD	NUWORLD
298	OAKFIELD THOROUGHBREDS & LEISURE IND LTD	OAKFLDS
299	OCEANA GROUP LTD	OCEANA
300	OCTODEC INVESTMENTS LTD	OCTODEC

301	OLD MUTUAL PLC	OLDMUTUAL
302	OMEGA ALPHA INTERNATIONAL IT HOLDINGS LTD	OAI
303	OMNIA HOLDINGS LTD	OMNIA
304	ONELOGIX GROUP LTD	ONELOGIX
305	OSI HOLDINGS LTD	OSI
306	OTK HOLDINGS LTD	OTK
307	OXBRIDGE ONLINE LTD	OXBRIDGE
308	OZZ LTD	OZZ
309	PACIFIC HOLDINGS LIMITED	PACHOLD
310	PALS HOLDINGS LTD	PALS
311	PANGBOURNE PROPERTIES LTD	PANPROP
312	PARACON HOLDINGS LTD	PARACON
313	PARADIGM CAPITAL HOLDINGS LTD	PARADIGM
314	PARAGON BUSINESS COMMUNICATIONS LTD	PARAGON
315	PARAMOUNT PROPERTY FUND LTD	PARAPROP
316	PASDEC RESOURCES SA LTD	PASDEC
317	PEPKOR LTD	PEPKOR
318	PEREGRINE HOLDINGS LTD	PERGRIN
319	PICK N PAY HOLDINGS LTD	PIKWIK
320	PICK N PAY STORES LTD	PICKNPAY
321	PINNACLE TECHNOLOGY HOLDINGS LTD	PINNACLE
322	PIONEER PROPERTY FUND	PIONEER
323	PLANIT TECHNOLOGY HOLDINGS LTD	PTH
324	POWER TECHNOLOGIES LTD	POWTECH
325	PRADA TECHNOLOGIES LTD	PRADTECH
326	PREMIER GROUP LTD	PREM-GRP
327	PREMIUM PROPERTIES LTD	PREMIUM
328	PRETORIA PORTLAND CEMENT COMPANY LTD	PPC
329	PRIMA PROPERTY TRUST	PRIMA
330	PRIMEDIA LTD	PRIME
331	PRIMEGRO PROPERTIES LTD	PRIMEGRO
332	PRISM HOLDINGS LTD	PRISM
333	PRIVEST GROUP LTD	PRIVEST
334	PROFURN LTD	PROFURN
335	PROPER GROUP LTD	PROPER
336	PSG GROUP LTD	PSG
337	PSG INVESTMENT BANK HOLDINGS LTD	PSGBANKH
338	PUTCO LTD	PUTCO
339	PUTCO PROPERTIES LTD	PUTPROP
340	QUICK HOLDINGS LTD	QUICKCO
341	QUYN HOLDINGS LTD	QUYN
342	RAINBOW CHICKEN LTD	RAINBOW
343	RAND LEASES PROPERTIES LTD	RLSPROPS
344	RARE EARTH EXTRACTION COMPANY LTD	RARECO
345	REAL AFRICA HOLDINGS LTD	RA-HOLD
346	REAL AFRICA INVESTMENTS LTD	RAI
347	REAL PEOPLE FINANCE LTD	RPFIN
348	REBSERVE HOLDINGS LTD	REBSERV
349	RECTRON HOLDINGS LTD	RECTRON
350	REDEFINE INCOME FUND LTD	REDEFINE
351	REF FINANCE & INVESTMENT CORPORATION LTD	REFCORP
352	REGAL TREASURY BANK HOLDINGS LTD	REGAL
353	RELYANT RETAIL LTD	RELYANT
354	REMGRO LTD	REMGRO
355	RENTSURE HOLDINGS LTD	RENTSUR
356	RETAIL APPAREL GROUP LTD	RAG
357	REUNERT LTD	REUNERT
358	REX TRUEFORM CLOTHING COMPANY LTD	REX-TRUE
359	RICHEMONT SECURITIES AG	RICHEMONT
360	RICHWAY RETAIL PROPERTIES LTD	RICHWAY
361	RMB HOLDINGS LTD	RMBH
362	S & J LAND HOLDINGS LTD	S&JLAND

363	SA EAGLE INSURANCE COMPANY LTD	SA-EAGLE
365	SA RETAIL PROPERTIES LTD	SARETAIL
366	SAAMBOU HOLDINGS LTD	SAAMBOU
367	SABLE HOLDINGS LTD	SABLE
368	SABVEST LTD	SABVEST
369	SAGE GROUP LTD	SAGEGRP
370	SAMRAND DEVELOPMENT HOLDINGS LTD	SAMRAND
371	SANLAM LTD	SANLAM
372	SANTAM LTD	SANTAM
373	SAPPI LTD	SAPPI
374	SASANI LTD	SASANI
375	SASFIN HOLDINGS LTD	SASFIN
376	SASOL LTD	SASOL
377	SEARDEL INVESTMENT CORPORATION LTD	SEARDEL
378	SEKUNJALO INVESTMENTS LTD	SEKUNJALO
379	SEMPRES INTERNATIONAL TECHNOLOGY HOLDINGS LTD	SEMPRES
380	SERVEST HOLDINGS LTD	SERVEST
381	SETPOINT TECHNOLOGY HOLDINGS LTD	SETHOLD
382	SHAWCELL TELECOMMUNICATIONS LTD	SHAWCELL
383	SHOPRITE HOLDINGS LTD	SHOPRIT
384	SHOPS FOR AFRICA LTD	SHOPS
385	SILTEK LTD	SILTEK
386	SMG HOLDINGS LTD	SMGHOLD
387	SOFTLINE LTD	SOFTLINE
388	SOUTH AFRICAN BREWERIES PLC	SABPLC
389	SOUTH AFRICAN RESERVE BANK	SARB
390	SOUTHERN AFRICAN INVESTMENTS LTD	SAIL
391	SOVEREIGN FOOD INVESTMENTS LTD	SOVFOOD
392	SPANJAARD LTD	SPANJAARD
393	SPEARHEAD PROPERTY HOLDINGS LTD	SPEARHD
394	SPECIALISED OUTSOURCING LTD	OUTSORS
395	SPESCOM LTD	SPESCOM
396	SPICER HOLDINGS LTD	SPICER
397	SPUR CORPORATION LTD	SPURCORP
398	SQUARE ONE SOLUTIONS GROUP LTD	SQONE
399	STANDARD BANK INVEST CORPORATION LTD	SBIC
400	STEERS HOLDINGS LTD	STEERS
401	STEINHOFF INTERNATIONAL HOLDINGS LTD	STEINHOFF
402	STELLA VISTA TECHNOLOGIES LTD	STELLA
403	STOCKS HOTELS & RESORTS LTD	STOCHOT
404	STRATCORP LTD	STRATCORP
405	STREAMWORKS GROUP LTD	STREAMWRK
406	SUN INTERNATIONAL (SOUTH AFRICA) LTD	SISA
407	SUPER GROUP LTD	SUPRGRP
408	SWEETS FROM HEAVEN HOLDINGS LTD	HEAVEN
409	SYCOM PROPERTY FUND	SYCOM
410	SYNERGY HOLDINGS LTD	SYNERGY
411	TAUFIN HOLDINGS LTD	TAUFIN
412	TEREXKO LTD	TEREXKO
413	TERRAFIN HOLDINGS LTD	TERFIN
414	THE HOUSE OF BUSBY LTD	BUSBY
415	THE INTERNET GAMING CORPORATION LTD	IGAMING
416	THEBE FINANCIAL SERVICES LTD	THEBEFIN
417	TIGER BRANDS LTD	TIGBRANDS
418	TIGER WHEELS LTD	TIWHEEL
419	TIGON LTD	TIGON
420	TILE AFRIKA HOLDINGS LTD	TILEAFRIKA
421	TISEC LTD	TISEC
422	TOCO HOLDINGS LTD	TOCO
423	TOLARAM 2000 LTD	TOLARAM
424	TONGAAT-HULETT GROUP LTD	TONGAAT
425	TOP INFO TECHNOLOGY HOLDINGS LTD	TOP-TECH

426	TOURISM INVESTMENT CORPORATION LTD	TOURVST
427	TRADEHOLD LTD	TRADEH
428	TRADEK HOLDINGS LTD	TRADEK
429	TRANSPACO LTD	TRNPACO
430	TREMATON CAPITAL INVESTMENTS LTD	TREMATON
431	TRENCOR LTD	TRENCOR
432	TRUWORTHS INTERNATIONAL LTD	TRUWTHS
433	UCS GROUP LTD	UCS
434	UNIFER HOLDINGS LTD	UNIFER
435	UNIHOLD LTD	UNIHOLD
436	UNION ALLIANCE MEDIA LTD	UAM
437	UNITED SERVICE TECHNOLOGIES LTD	UNISERV
438	UNITRANS LTD	UNITRAN
439	UNIVERSAL GROWTH HOLDINGS LTD	UNIGRO
440	VAALAUTO LTD	VALAUTO
441	VAALTRUCAR LTD	VALCAR
442	VALUE GROUP LTD	VALUE
443	VELOCITY HOLDINGS LTD	VELOCITY
444	VENFIN LTD	VENFIN
445	VENTER LEISURE & COMMERCIAL TRAILERS LTD	VENTEL
446	VESTA TECHNOLOGY HOLDINGS LTD	VESTA
447	VESTACOR LTD	VESTCOR
448	VIKING INVESTMENTS & ASSET MANAGEMENT LTD	VIKING
449	VOLTEX HOLDINGS LTD	VOLTEX
450	W B HOLDINGS LTD	WBHOLD
451	WESCO INVESTMENTS LTD	WESCO
452	WETHERLYS INVESTMENT HOLDINGS LTD	WETHLYS
453	WHETSTONE INDUSTRIAL HOLDINGS LTD	WHETSTN
454	WILSON BAYLY HOLMES-OVCON LTD	WBHO
455	WINECORP LTD	WINECORP
456	WINHOLD LTD	WINHOLD
457	WOMEN INVESTMENT PORTFOLIO HOLDINGS LTD	WIPHOLD
458	WOOLTRU LTD	WOOLTRU
459	WOOLWORTHS HOLDINGS LTD	WOOLIES
460	Y3K GROUP LTD	YTHRK
461	YABENG INVESTMENT HOLDING COMPANY LTD	YABENG
462	YORK TIMBER ORGANISATION LTD	YORKCOR
463	ZAPTRONIX LTD	ZAPTRONIX
464	ZARARA ENERGY LTD	ZARARA
465	ZELTIS HOLDINGS LTD	ZELTIS

TOTAL NUMBER OF COMPANIES	NAME OF DELISTED COMPANY
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1	ABRAXAS INVESTMENT HOLDINGS LTD	ABRAXAS
2	ACUMEN HOLDINGS LTD	ACUMEN
3	ADCOCK INGRAM LTD	ADCOCK
4	ADCOCK INGRAM LTD N	ADCOCK-N
5	ADVANCED SOFTWARE TECHNOLOGY LTD	AST
6	ADVSOURCE HOLDINGS LTD	ADVSOURCE
7	ADVSOURCE HOLDINGS LTD N	ADVSOURCN
8	AFRICAN PARTNERSHIP LTD	PARTNER
9	ALLAN GRAY PROPERTY INVESTMENT LTD	GRAYVEST
10	AMALIA GOLD MINING & EXPLORATION COMPANY LTD	AMALIA
11	ANGLO AMERICAN GOLD COMPANY LTD	AMGOLD
12	ANGLO AMERICAN INV TRST LTD	ANAMINT
13	ANGLO AMERICAN PROPERTIES LTD	AMAPROP
14	ANGLO AMERICAN PROPERTIES LTD LS	AMAPROP-LS
15	ANGLOVAAL INDUSTRIAL HOLDINGS LTD	AVIHOLD
16	APEX PROPERTY FUND	APEX
17	ARCAY GROUP LTD	ARCAY

18	ARIES INVESTMENT HOLDINGS LTD	ARIES
19	AUTOPAGE HOLDINGS LTD	AUTOPGE
20	AXIAM HOLDINGS LTD	AXIAM
21	BARPROP LIMITED	BARPROP
22	BATEMAN INDUSTRIAL CORP LTD	BATECOR
23	BATEMAN PROJECT HOLDINGS LTD	BATEPRO
24	BENGUELA CONCESSIONS LTD	BENCO
25	BEV & CONSUMER IND HOLDINGS LTD	BEVCON
26	BOE CORPORATION LTD	BOECORP
27	BOE CORPORATION LTD N	BOECORP-N
28	BOLTON FOOTWEAR LTD	BOLWEAR
29	BOTSWANA RST LTD	BOTREST
30	BOUMAT LTD	BOUMAT
31	BOWLER METCALFE LTD N2	BOWCAL-N2
32	BRANSBY INVESTMENT COMPANY LTD	BRANSBY
33	BRITISH AMERICAN TOBACCO SA	BATSA
34	BYNX LTD	BYNX
35	C G SMITH FOODS LTD	CGS-FOOD
36	C G SMITH LTD	CGSMITH
37	CADBURY SCHWEPES (SOUTH AFRICA) LTD	CADSWEP
38	CAPESTAR GROWTH INVESTMENTS LTD	CAPSTAR
39	CARSON HOLDINGS LTD	CARSON
40	CGU HOLDINGS LTD	CGU
41	CHARIOT HOLDINGS LTD	CHARIOT
42	CHET INDUSTRIES LTD	CHET
43	CHILLERS GROUP LTD	CHILLRS
44	CLINIC HOLDINGS LTD	CLINICS
45	CLYDE INDUSTRIAL CORPORATION LTD	CLYDE
46	COATES BROTHERS (SOUTH AFRICA) LTD	COATES
47	COMPASS PROPERTY HOLDINGS LTD	COMPASS
48	COMPUTER CONFIGURATION HOLDINGS LTD	CCH
49	CONSHU HOLDINGS LTD	CONSHU
50	CORNICK GROUP LTD	CORNICK
51	COROHEDGE CAPITAL LTD	HEDGE
52	CORPCAPITAL BANK CONTROLLING COMPANY LTD	CORPBANK
53	CORPCAPITAL BANK CONTROLLING COMPANY LTD OPT	CORPBANKOP
54	CORPCAPITAL LTD	CORPCAP
55	CORPCOM LTD	CORPCOM
56	CREDCOR LTD	CREDCOR
57	CULLINAN HOTEL & LEISURE LTD	CULTEL
58	DALYS LTD	DALYS
59	DE BEERS CONSOLIDATED MINES LTD	DEBEERS
60	DECOMAC HOLDINGS LTD	DECOMAC
61	DECOR INVESTMENT HOLDINGS LTD	DECHOLD
62	DEL MONTE ROYAL CORPORATION LTD	DELCORP
63	DEL MONTE ROYAL FOODS LTD	DELFOOD
64	DEL MONTE ROYAL HOLDINGS LTD	DELHOLD
65	DELISTED	DELISTED
66	DUIKER MINING LTD	DUIKERS
67	EAST RAND PROPRIETARY MINES LTD	E-R-P-M
68	EDUCOR LTD	EDUCOR
69	ELVEY SECURITY TECHNOLOGIES LTD	ELSEC
70	EMERALD TOPBRAND SPORTS LTD	ETS
71	EMPOWERMENT INVESTMENT CO LTD	EMPOWER
72	EQUIKOR HOLDINGS LTD	EQUIKOR
73	EQUINOX HOLDINGS LTD	EQUINOX
74	ETTINGTON INVESTMENTS LTD	ETINGTN
75	FASIC LTD	FASIC
76	FEDICS GROUP LTD	FEDICS
77	FELTEX LTD	FELTEX
78	FINTECH LTD	FINTECH
79	FIRST INTERNATIONAL TRUST LTD	FIT

80	FIRST LIFESTYLE HOLDINGS LTD	LIFESTYLE
81	FRALEX LTD	FRALEX
82	FRALEX LTD N	FRALEX-N
83	FRAME GROUP LTD	FRAME
84	FRANSAF LTD	FRANSAF
85	FRASER ALEXANDER LTD	ALEXNDR
86	FURNCO INVESTMENTS LTD	FURNCO
87	FUSION CAPITAL LTD	FUSION
88	GEM DIAMOND MINING CORPORATION LTD	GEM
89	GENBEL SECURITIES LTD	GENSEC
90	GENERAL OPTICAL COMPANY LTD	GEN-OPTIC
91	GLOBAL CAPITAL PVT EQUITY LTD	GLOPVT
92	GLOCASH INVESTMENTS LTD	GLOCASH
93	GLOHOLD LTD	GLOHOLD
94	GOLD FIELDS NAMIBIA LTD	GFNAMIB
95	GOLD FIELDS OF SOUTH AFRICA LTD	GFSA
96	GRAY SECURITY SERVICES LTD	GRAY
97	GRINAKER CONSTRUCTION LTD	GRINAKER
98	GROUP FIVE HOLDINGS LTD	G5HOLD
99	GROUP FIVE LTD N	GROUP5-N
100	GROVE PROPERTY FUND	GROPROP
101	GUARDIAN NATIONAL INSURANCE COMPANY LTD	GARDIAN
102	GUNDLE DELISTED	GUNDLE
103	HARWILL INVESTMENTS LTD	HARWILL
104	I-FUSION HOLDINGS LTD	IFUSION
105	IGI INSURANCE CO LTD	I-G-I
106	INDEPENDENT NEWSPAPERS HLDS.	INDNEWS
107	INDUSTRIAL AND COMMERCIAL HOLDINGS LTD	ICH
108	INFINITI TECHNOLOGIES LTD	INFINITI
109	INTEGRATED TECHNOLOGY HOLDINGS LTD	ITECH
110	INVESTEC GROUP CONV DEBS	INVSTECCD
111	INVESTEC INVESTMENT TRUST LTD	INTRUST
112	IRVIN AND JOHNSON LTD	I-&-J
113	ISLAND VIEW STORAGE LTD	IVS
114	ITI TECHNOLOGY HOLDINGS LTD	ITITECH
115	KALAHARI GOLD RIDGE MINES LTD	KALGOLD
116	KAROS HOTELS LTD	KAROS
117	KLIPTON LTD	KLIPTON
118	KROONDAL PLATINUM MINES LTD	KPM
119	LANGEBERG HOLDINGS LIMITED	LANGEBERG
120	LENCO HOLDINGS LTD	LENCO
121	LEWIS FOSCHINI INVESTMENT CO N	LEFIC-N
122	LIBERTY INVESTORS LTD	LIBVEST
123	LIBLIFE STRATEGIC INVESTMENTS LTD	LIBSIL
124	LITHOTECH LTD	LITECH
125	LOGOPT LTD	LOGOPT
126	LTA LTD	L-T-A
127	MACADAMS BAKERY SUPPLIES HOLDINGS LTD	MACADAM
128	MACMED HEALTH CARE LTD	MACMED
129	MAGNUM GLOBAL FUNDS SA LTD	MAGNUM
130	MARANDA LTD	MARANDA
131	MAS HOLDINGS LTD	MASHOLD
132	MAXTEL LTD	MAXTEL
133	MAXTEL LTD N	MAXTEL-N
134	MDM GROWTH INVESTMENTS LTD	MDMGROW
135	MERCURY ALPHA CAPITAL LTD	MAC
136	METKOR GROUP LTD	METKOR
137	METROPOLIS TRANSACTIVE HOLDINGS LTD	MTROPLS
138	METROPOLITAN LIFE LTD	METLIFE
139	MHANGURA COPPER MINES LTD	M-C-M
140	MINORCO SOCIETE ANONYME	MINORCO
141	MMW TECHNOLOGY HOLDINGS LTD	MMWTECH

142	MONEX LTD	MONEX
143	MORESPOORT HOLDINGS LTD	SPORT
144	MSI HOLDINGS LTD	MSIHOLD
145	M-WEB HOLDINGS LTD	M-WEB
146	NATAL OCEAN TRAWLING LTD	NATRAWL
147	NEI AFRICA HOLDINGS LTD	NEIHOLD
148	NEW WITS LTD	NEW-WITS
149	NEWPORT PROPERTY FUND	NEWPORT
150	NIMBUS HOLDINGS LTD	NIMBUS
151	O HAGANS INVESTMENT HOLDINGS LTD	OHAGANS
152	OCEAN DIAMOND MINING LTD	ODMHOLD
153	OMEGA HOLDINGS LTD	OMEGA
154	PACIFIC ASIA INV INTERNATIONAL	PACIFIC
155	PENNYSTOCKS INVESTMENTS LTD	PENNY
156	PENROSE HOLDINGS LTD	PENROSE
157	PENTACOM HOLDINGS LTD	PENTACOM
158	PEPGRO LTD	PEPGRO
159	PERSKOR BELEGGINGS BEPERK	PERSBEL
160	PLASGROUP LTD	PLASGRP
161	PLATE GLASS & SHATTERPRUFE IND	PLATE-GL
162	POLIFIN LIMITED	POLIFIN
163	PORTLAND HOLDINGS LTD	PORTHLD
164	PRIMA TOY AND LEISURE GROUP LTD	PRIMATOY
165	PROSPUR PACKAGING & PLASTICS LTD	PROSPUR
166	PSG FINANCIAL SERVICES LTD	PSL
167	PSG NOBLE CAPITAL LTD	PSGNOBLE
168	PUTRA STERLING LTD	PUTRA
169	Q MART HOLDINGS LTD	QMART
170	QALA GROUP LTD	QALA
171	RADIOSPOR TECHNOLOGY HOLDINGS LTD	RADIOSPR
172	RANDFONTEIN ESTATES LTD	RANDFONTN
173	REAL AFRICA DUROLINK HOLDINGS LTD	RAD
174	REF MARKETING AND MEDIA LTD	REFMARK
175	REMBRANDT BEHERENDE BELEG BPK	REMBR-BEH
176	RENAISSANCE RETAIL GROUP LTD	RENAISAN
177	RETAIL CORPORATION LTD	RETCORP
178	RMS PROPERTY HOLDINGS LTD	RMSPROP
179	ROADCORP LTD	ROADCOR
180	ROMATEX LTD	ROMATEX
181	SAFMARINE & RENNIES HOLDINGS LTD	SAFREN
182	SCHARRIGHUISEN HOLDINGS LTD	SCHARIG
183	SEA HARVEST CORPORATION LTD	SEAHARV
184	SEARTEC LTD	SEARTEC
185	SECUREDATA SOLUTIONS LTD	SECDATA
186	SELECTIVE FINANCIAL GROUP LTD	SFG
187	SENTRY GROUP LTD	SENTRY
188	SHOREDITS HOLDINGS LIMITED	SHOREDITS
189	SIB HOLDINGS LTD	SIB
190	SM GOLDSTEIN LTD	GOLDSTEIN
191	SMACSOFT GROUP LTD	SMACSOFT
192	SONDOR INDUSTRIES LTD	SONDOR
193	SOTTA SEC INTERNATIONAL LTD	SOTTA
194	SOUTH AFRICAN DRUGGISTS LTD	SA-DRUG
195	SPUR HOLDINGS LIMITED	SPURHLD
196	SPUR STEAK RANCHES LTD	SPUR
197	ST HELENA GOLD MINING CO LTD	ST-HELENA
198	STANTRONIC GROUP HOLDINGS LTD	STANTRN
199	STEERS HOLDINGS LIMITED N	STEERS-N
200	STELLENBOSCH FARMERS WINERY GROUP LTD	SFW
201	STOCKS & STOCKS HOLDINGS LTD	S&SHOLD
202	STOCKS & STOCKS LTD	STOCKS
203	STORECO LTD	STORECO

204	STRAND GROUP HOLDINGS LTD	STRAND
205	STRUCTURED INVESTMENTS LIMITED	STRUCTURED
206	TECHNOLOGY COMM HOLDING LTD	TECHCOM
207	TEGNESE & IND BELEGGINGS BPK	TIB
208	TEGNESE BELEGGINGSKORP BPK	TEGKOR
209	TELEMETRIX PLC	TMX
210	TELJOY HOLDINGS LTD	TELJOY
211	TELTRON LTD	TELTRON
212	TEMPORA INVESTMENTS LTD	TEMPORA
213	THE LEARNING CORPORATION LTD	TLC
214	THUTHUKANI GROUP LTD	THUKANI
215	TOYOTA SOUTH AFRICA LTD	TOYOTA
216	TRIDELTA MAGNET TECHNOLOGY HOLDINGS LTD	TRIDELTA
217	TWEEFONTEIN UNITED COLLIERIES LTD	TWEEFONTN
218	VALUECOM HOLDINGS LTD	VALUECOM
219	VENTRON CORPORATION LTD	VENTRON
220	VOGELSTRUISBULT METAL HOLDINGS LTD	VOGELS
221	WACO INTERNATIONAL LTD	WACO
222	WEST RAND CONSOLIDATED MINES	W-R-CONS
223	WESTERN CAPE PROPERTY COMPANY LTD	WESCAP
224	WINBEL LTD	WINBEL
225	WITWATERSRAND GOLD MINING COMPANY LTD	WIT-G-M
226	WORLD EDUCATIONAL TECHNOLOGIES LTD	WENTECH

APPENDIX 2a**AVERAGE MONTHLY NOMINAL INTEREST RATES**

Year	NOMINAL INTEREST RATES (LT-GOVERNMENT BOND YIELDS)											
	J	F	M	A	M	J	J	A	S	O	N	D
1979	10.0	10.0	10.0	10.0	10.0	10.0	9.4	9.4	9.4	9.4	9.4	9.4
1980	9.4	9.4	9.4	9.3	9.3	9.3	9.8	9.8	9.8	9.8	9.8	11.8
1981	11.8	11.8	11.8	11.8	13.0	13.0	13.0	13.0	13.0	13.2	13.2	13.2
1982	13.2	14.4	14.4	14.7	14.7	14.7	14.7	14.7	14.7	13.0	13.0	13.0
1983	13.0	13.0	13.0	12.2	12.2	13.7	13.7	13.7	13.7	13.7	13.9	13.9
1984	13.9	13.9	13.9	14.6	14.6	14.6	14.6	14.6	14.6	16.6	16.6	16.6
1985	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.9	16.9	16.9
1986	16.9	17.2	17.3	17.4	17.1	17.4	16.4	14.9	14.5	15.8	15.6	15.3
1987	15.1	15.4	15.0	15.2	15.6	15.6	15.5	15.1	15.2	15.2	15.3	15.5
1988	16.1	16.5	16.6	16.5	16.4	16.1	16.1	16.1	16.0	16.5	16.8	16.7
1989	16.6	16.6	16.9	17.2	17.4	17.2	17.2	17.0	16.8	16.9	16.9	15.9
1990	15.5	15.6	15.7	16.2	16.2	16.7	16.4	16.3	16.4	16.6	16.4	16.0
1991	16.0	15.6	15.6	15.8	16.0	16.3	16.4	16.8	16.8	17.2	16.8	16.7
1992	16.7	16.9	16.4	16.3	16.0	16.0	15.3	14.3	14.2	13.9	14.5	14.9
1993	14.7	14.4	14.5	15.0	14.9	14.7	14.2	13.9	13.3	13.1	12.5	12.2
1994	12.1	12.8	13.0	13.2	13.8	14.5	15.1	15.9	16.9	16.9	16.9	16.8
1995	17.0	16.8	16.7	16.8	17.0	16.8	16.6	16.0	15.5	15.2	14.4	14.6
1996	13.8	14.1	15.0	15.8	16.5	15.8	15.4	15.8	15.4	15.8	16.2	16.2
1997	15.8	15.0	15.2	15.2	15.1	14.7	14.2	14.2	14.2	14.1	14.5	14.1
1998	13.6	13.5	13.3	12.9	13.5	14.6	15.9	17.0	18.3	16.5	16.1	16.4
1999	15.9	14.9	14.5	14.6	15.1	14.9	15.0	15.3	15.4	15.0	14.3	14.0
2000	13.5	13.5	13.9	14.3	14.8	14.3	13.9	13.5	13.7	13.7	13.4	12.9

Year	CHANGE IN NOMINAL INTEREST RATES											
	J	F	M	A	M	J	J	A	S	O	N	D
1980	0.000	0.000	0.000	-0.130	0.000	0.000	0.550	0.000	0.000	0.000	0.000	1.960
1981	0.000	0.000	0.000	0.000	1.260	0.000	0.000	0.000	0.000	0.190	0.000	0.020
1982	0.000	1.190	0.000	0.300	0.000	-0.040	0.000	0.000	0.000	-1.730	0.000	0.000
1983	0.000	0.000	0.000	-0.780	0.000	1.550	0.000	0.000	0.000	0.000	0.140	0.000
1984	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	1.950	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.310	0.000	0.000
1986	0.000	0.310	0.110	0.070	-0.250	0.270	-0.980	-1.510	-0.390	1.260	-0.120	-0.380
1987	-0.120	0.240	-0.420	0.220	0.370	0.050	-0.100	-0.410	0.060	0.090	0.070	0.150
1988	0.680	0.390	0.090	-0.170	-0.010	-0.310	-0.040	-0.010	-0.050	0.440	0.300	-0.060
1989	-0.070	0.000	0.280	0.300	0.160	-0.140	-0.050	-0.150	-0.210	0.110	-0.020	-1.070
1990	-0.360	0.120	0.050	0.500	0.010	0.500	-0.250	-0.150	0.150	0.140	-0.130	-0.470
1991	0.040	-0.420	0.060	0.190	0.180	0.300	0.120	0.360	0.050	0.370	-0.380	-0.170
1992	-0.010	0.210	-0.450	-0.150	-0.290	0.010	-0.690	-0.950	-0.160	-0.320	0.680	0.360
1993	-0.250	-0.290	0.130	0.540	-0.110	-0.220	-0.460	-0.390	-0.560	-0.220	-0.560	-0.310
1994	-0.130	0.730	0.190	0.250	0.520	0.700	0.650	0.760	1.020	0.020	0.030	-0.140
1995	0.220	-0.200	-0.100	0.100	0.130	-0.170	-0.160	-0.660	-0.470	-0.340	-0.760	0.170
1996	-0.790	0.330	0.940	0.740	0.750	-0.750	-0.390	0.430	-0.400	0.380	0.380	0.010
1997	-0.370	-0.790	0.130	0.080	-0.160	-0.360	-0.510	0.030	-0.060	-0.130	0.450	-0.360
1998	-0.530	-0.120	-0.160	-0.410	0.540	1.140	1.290	1.060	1.350	-1.790	-0.460	0.310
1999	-0.470	-1.010	-0.340	0.040	0.560	-0.210	0.040	0.310	0.070	-0.350	-0.700	-0.340
2000	-0.470	0.010	0.420	0.350	0.520	-0.460	-0.430	-0.380	0.200	0.000	-0.320	-0.510

APPENDIX 2b**MONTH ENDING NOMINAL INTEREST RATES**

Year	NOMINAL INTEREST RATES (LT-GOVERNMENT BOND YIELDS)											
	J	F	M	A	M	J	J	A	S	O	N	D
1979												9.400
1980	9.200	9.190	9.210	9.310	9.500	9.600	9.920	10.080	10.550	11.100	11.650	11.790
1981	12.660	12.750	12.750	12.800	13.050	13.040	13.050	13.100	13.230	13.230	13.280	13.450
1982	13.910	14.200	14.220	14.190	14.120	14.480	14.710	13.680	12.750	12.300	11.900	11.180
1983	10.850	12.250	12.350	11.920	12.260	13.370	12.950	13.130	12.800	13.450	13.750	13.600
1984	14.000	14.430	14.000	14.670	14.700	14.650	16.150	15.930	16.750	16.600	15.790	16.600
1985	17.470	17.720	17.200	16.800	16.080	15.500	16.100	16.650	17.420	17.950	18.200	18.000
1986	17.470	17.190	17.580	17.350	17.180	17.050	15.500	14.260	15.340	16.010	16.640	13.150
1987	15.500	15.100	14.720	15.360	15.700	15.610	15.260	15.000	15.110	15.370	15.260	15.430
1988	16.580	16.660	16.610	16.600	15.340	16.050	16.175	16.120	16.170	16.570	16.840	16.690
1989	16.620	16.710	17.115	17.365	17.410	17.265	17.175	17.030	16.730	16.935	16.440	15.595
1990	15.460	15.700	15.950	16.255	16.210	16.685	16.340	16.350	16.440	16.655	16.330	15.870
1991	15.695	15.560	15.840	15.820	16.120	16.500	16.640	16.900	17.000	17.065	16.720	16.680
1992	16.780	16.830	16.350	16.135	15.920	15.790	15.010	14.525	13.855	14.450	14.840	15.000
1993	14.800	14.570	14.900	15.190	15.080	14.710	14.135	13.955	13.280	13.225	12.610	12.015
1994	12.690	12.790	13.415	12.710	13.850	14.885	15.250	16.780	17.030	16.855	16.740	17.000
1995	16.995	16.700	16.745	16.990	16.955	16.740	16.425	15.825	15.160	14.870	14.480	14.300
1996	13.770	14.750	15.260	16.200	16.420	15.150	15.835	15.620	15.390	16.220	16.050	16.270
1997	15.470	14.780	15.350	14.890	14.990	14.435	14.010	14.430	13.980	14.860	14.350	13.820
1998	13.570	13.470	13.150	12.990	13.940	15.140	15.530	19.540	17.360	15.550	16.030	15.940
1999	15.615	14.370	14.780	14.595	15.205	15.200	15.185	15.280	15.060	14.810	14.320	13.745
2000	13.745	13.670	14.110	14.530	14.415	14.180	13.710	13.530	13.550	13.740	13.205	12.715

Year	CHANGE IN NOMINAL INTEREST RATES											
	J	F	M	A	M	J	J	A	S	O	N	D
1980	-0.200	-0.010	0.020	0.100	0.190	0.100	0.320	0.160	0.470	0.550	0.550	0.140
1981	0.870	0.090	0.000	0.050	0.250	-0.010	0.010	0.050	0.130	0.000	0.050	0.170
1982	0.460	0.290	0.020	-0.030	-0.070	0.360	0.230	-1.030	-0.930	-0.450	-0.400	-0.720
1983	-0.330	1.400	0.100	-0.430	0.340	1.110	-0.420	0.180	-0.330	0.650	0.300	-0.150
1984	0.400	0.430	-0.430	0.670	0.030	-0.050	1.500	-0.220	0.820	-0.150	-0.810	0.810
1985	0.870	0.250	-0.520	-0.400	-0.720	-0.580	0.600	0.550	0.770	0.530	0.250	-0.200
1986	-0.530	-0.280	0.390	-0.230	-0.170	-0.130	-1.550	-1.240	1.080	0.670	0.630	-3.490
1987	2.350	-0.400	-0.380	0.640	0.340	-0.090	-0.350	-0.260	0.110	0.260	-0.110	0.170
1988	1.150	0.080	-0.050	-0.010	-1.260	0.710	0.125	-0.055	0.050	0.400	0.270	-0.150
1989	-0.070	0.090	0.405	0.250	0.045	-0.145	-0.090	-0.145	-0.300	0.205	-0.495	-0.845
1990	-0.135	0.240	0.250	0.305	-0.045	0.475	-0.345	0.010	0.090	0.215	-0.325	-0.460
1991	-0.175	-0.135	0.280	-0.020	0.300	0.380	0.140	0.260	0.100	0.065	-0.345	-0.040
1992	0.100	0.050	-0.480	-0.215	-0.215	-0.130	-0.780	-0.485	-0.670	0.595	0.390	0.160
1993	-0.200	-0.230	0.330	0.290	-0.110	-0.370	-0.575	-0.180	-0.675	-0.055	-0.615	-0.595
1994	0.675	0.100	0.625	-0.705	1.140	1.035	0.365	1.530	0.250	-0.175	-0.115	0.260
1995	-0.005	-0.295	0.045	0.245	-0.035	-0.215	-0.315	-0.600	-0.665	-0.290	-0.390	-0.180
1996	-0.530	0.980	0.510	0.940	0.220	-1.270	0.685	-0.215	-0.230	0.830	-0.170	0.220
1997	-0.800	-0.690	0.570	-0.460	0.100	-0.555	-0.425	0.420	-0.450	0.880	-0.510	-0.530
1998	-0.250	-0.100	-0.320	-0.160	0.950	1.200	0.390	4.010	-2.180	-1.810	0.480	-0.090
1999	-0.325	-1.245	0.410	-0.185	0.610	-0.005	-0.015	0.095	-0.220	-0.250	-0.490	-0.575
2000	0.000	-0.075	0.440	0.420	-0.115	-0.235	-0.470	-0.180	0.020	0.190	-0.535	-0.490

APPENDIX 3**COEFFICIENT OF DETERMINATION R^2** **UNIVARIATE REGRESSIONS****AVERAGE MONTHLY LONG-TERM GOVERNMENT BOND YIELDS AND PRICE-EARNINGS SORTS**

Regression Summary for Dependent Variable: Rport1 R= .08856397 R ² = .00784358 Adjusted R ² = .00387495
Regression Summary for Dependent Variable: Rport2 R= .05960588 R ² = .00355286 Adjusted R ² = -----
Regression Summary for Dependent Variable: Rport3 R= .08593451 R ² = .00738474 Adjusted R ² = .00341428
Regression Summary for Dependent Variable: Rport4 R= .11695413 R ² = .01367827 Adjusted R ² = .00973298
Regression Summary for Dependent Variable: Rport5 R= .17650506 R ² = .03115404 Adjusted R ² = .02727865
Regression Summary for Dependent Variable: Rport6 R= .19822669 R ² = .03929382 Adjusted R ² = .03545100
Regression Summary for Dependent Variable: Rport7 R= .20151642 R ² = .04060887 Adjusted R ² = .03677130
Regression Summary for Dependent Variable: Rport8 R= .13829803 R ² = .01912634 Adjusted R ² = .01520285
Regression Summary for Dependent Variable: Rport9 R= .20181524 R ² = .04072939 Adjusted R ² = .03689231
Regression Summary for Dependent Variable: Rport10 R= .21476363 R ² = .04612342 Adjusted R ² = .04230791
Regression Summary for Dependent Variable: Rport11 R= .30437582 R ² = .09264464 Adjusted R ² = .08901522
Regression Summary for Dependent Variable: Rport12 R= .22608668 R ² = .05111519 Adjusted R ² = .04731965
Regression Summary for Dependent Variable: Rport13 R= .23010171 R ² = .05294680 Adjusted R ² = .04915859
Regression Summary for Dependent Variable: Rport14 R= .34804057 R ² = .12113224 Adjusted R ² = .11761677
Regression Summary for Dependent Variable: Rport15 R= .30565933 R ² = .09342763 Adjusted R ² = .08980134
Regression Summary for Dependent Variable: Rport16 R= .31181472 R ² = .09722842 Adjusted R ² = .09361733

MONTH ENDING LONG-TERM GOVERNMENT BOND YIELDS AND PRICE-EARNINGS SORTS

Regression Summary for Dependent Variable: Rport1 R= .01062121 R ² = .00011281 Adjusted R ² = -----
Regression Summary for Dependent Variable: Rport2 R= .07590133 R ² = .00576101 Adjusted R ² = .00178406
Regression Summary for Dependent Variable: Rport3 R= .06413359 R ² = .00411312 Adjusted R ² = .00012957
Regression Summary for Dependent Variable: Rport4 R= .12042685 R ² = .01450263 Adjusted R ² = .01056064
Regression Summary for Dependent Variable: Rport5 R= .09148013 R ² = .00836861 Adjusted R ² = .00440209
Regression Summary for Dependent Variable: Rport6 R= .18491693 R ² = .03419427 Adjusted R ² = .03033105
Regression Summary for Dependent Variable: Rport7 R= .13303105 R ² = .01769726 Adjusted R ² = .01376805
Regression Summary for Dependent Variable: Rport8 R= .13625820 R ² = .01856630 Adjusted R ² = .01464056
Regression Summary for Dependent Variable: Rport9 R= .26426527 R ² = .06983613 Adjusted R ² = .06611548
Regression Summary for Dependent Variable: Rport10 R= .23288629 R ² = .05423602 Adjusted R ² = .05045297
Regression Summary for Dependent Variable: Rport11 R= .26922093 R ² = .07247991 Adjusted R ² = .06876983
Regression Summary for Dependent Variable: Rport12 R= .27412301 R ² = .07514343 Adjusted R ² = .07144400
Regression Summary for Dependent Variable: Rport13 R= .33025239 R ² = .10906664 Adjusted R ² = .10550291
Regression Summary for Dependent Variable: Rport14 R= .34201658 R ² = .11697534 Adjusted R ² = .11344324
Regression Summary for Dependent Variable: Rport15 R= .40004245 R ² = .16003396 Adjusted R ² = .15667410
Regression Summary for Dependent Variable: Rport16 R= .33038448 R ² = .10915390 Adjusted R ² = .10559052

AVERAGE MONTHLY LONG-TERM GOVERNMENT BOND YIELDS AND BOOK-TO-MARKET SORTS

Regression Summary for Dependent Variable: Rport1 R= .09262478 R ² = .00857935 Adjusted R ² = .00461367
Regression Summary for Dependent Variable: Rport2 R= .00737493 R ² = .00005439 Adjusted R ² = -----
Regression Summary for Dependent Variable: Rport3 R= .14593876 R ² = .02129812 Adjusted R ² = .01738331
Regression Summary for Dependent Variable: Rport4 R= .10856795 R ² = .01178700 Adjusted R ² = .00783415
Regression Summary for Dependent Variable: Rport5 R= .20781484 R ² = .04318701 Adjusted R ² = .03935975
Regression Summary for Dependent Variable: Rport6 R= .16438308 R ² = .02702180 Adjusted R ² = .02312988
Regression Summary for Dependent Variable: Rport7 R= .12776428 R ² = .01632371 Adjusted R ² = .01238901
Regression Summary for Dependent Variable: Rport8 R= .22516829 R ² = .05070076 Adjusted R ² = .04690356
Regression Summary for Dependent Variable: Rport9 R= .20988214 R ² = .04405051 Adjusted R ² = .04022671
Regression Summary for Dependent Variable: Rport10 R= .24872877 R ² = .06186600 Adjusted R ² = .05811346
Regression Summary for Dependent Variable: Rport11 R= .25073910 R ² = .06287010 Adjusted R ² = .05912158
Regression Summary for Dependent Variable: Rport12 R= .22731504 R ² = .05167213 Adjusted R ² = .04787882
Regression Summary for Dependent Variable: Rport13 R= .23861344 R ² = .05693637 Adjusted R ² = .05316412
Regression Summary for Dependent Variable: Rport14 R= .29756919 R ² = .08854743 Adjusted R ² = .08490162
Regression Summary for Dependent Variable: Rport15 R= .31022145 R ² = .09623735 Adjusted R ² = .09262230
Regression Summary for Dependent Variable: Rport16 R= .34355208 R ² = .11802803 Adjusted R ² = .11450014

MONTH ENDING LONG-TERM GOVERNMENT BOND YIELDS AND BOOK-TO-MARKET SORTS

Regression Summary for Dependent Variable: Rport1 R= .08234463 R ² = .00678064 Adjusted R ² = .00280776
Regression Summary for Dependent Variable: Rport2 R= .00157794 R ² = .00000249 Adjusted R ² = ----
Regression Summary for Dependent Variable: Rport3 R= .16155223 R ² = .02609912 Adjusted R ² = .02220352
Regression Summary for Dependent Variable: Rport4 R= .06093170 R ² = .00371267 Adjusted R ² = ----
Regression Summary for Dependent Variable: Rport5 R= .16446251 R ² = .02704792 Adjusted R ² = .02315611
Regression Summary for Dependent Variable: Rport6 R= .05792652 R ² = .00335548 Adjusted R ² = ----
Regression Summary for Dependent Variable: Rport7 R= .14986225 R ² = .02245869 Adjusted R ² = .01854853
Regression Summary for Dependent Variable: Rport8 R= .17491464 R ² = .03059513 Adjusted R ² = .02671751
Regression Summary for Dependent Variable: Rport9 R= .23259023 R ² = .05409821 Adjusted R ² = .05031461
Regression Summary for Dependent Variable: Rport10 R= .30209815 R ² = .09126329 Adjusted R ² = .08762834
Regression Summary for Dependent Variable: Rport11 R= .22149714 R ² = .04906098 Adjusted R ² = .04525723
Regression Summary for Dependent Variable: Rport12 R= .28548189 R ² = .08149991 Adjusted R ² = .07782591
Regression Summary for Dependent Variable: Rport13 R= .31577723 R ² = .09971526 Adjusted R ² = .09611412
Regression Summary for Dependent Variable: Rport14 R= .36232898 R ² = .13128229 Adjusted R ² = .12780742
Regression Summary for Dependent Variable: Rport15 R= .37677637 R ² = .14196044 Adjusted R ² = .13852828
Regression Summary for Dependent Variable: Rport16 R= .34302236 R ² = .11766434 Adjusted R ² = .11413500

APPENDIX 3**COEFFICIENT OF DETERMINATION R^2** **MARKET MODEL REGRESSIONS****AVERAGE MONTHLY LONG-TERM GOVERNMENT BOND YIELDS AND PRICE-EARNINGS SORTS**

Regression Summary for Dependent Variable: Rport1 R= .69070215 R ² = .47706946 Adjusted R ² = .47286921
Regression Summary for Dependent Variable: Rport2 R= .60124688 R ² = .36149782 Adjusted R ² = .35636928
Regression Summary for Dependent Variable: Rport3 R= .54854484 R ² = .30090144 Adjusted R ² = .29528619
Regression Summary for Dependent Variable: Rport4 R= .49434119 R ² = .24437321 Adjusted R ² = .23830392
Regression Summary for Dependent Variable: Rport5 R= .72097676 R ² = .51980749 Adjusted R ² = .51595052
Regression Summary for Dependent Variable: Rport6 R= .73169520 R ² = .53537786 Adjusted R ² = .53164596
Regression Summary for Dependent Variable: Rport7 R= .70937690 R ² = .50321559 Adjusted R ² = .49922535
Regression Summary for Dependent Variable: Rport8 R= .75257029 R ² = .56636204 Adjusted R ² = .56287900
Regression Summary for Dependent Variable: Rport9 R= .78439859 R ² = .61528114 Adjusted R ² = .61219103
Regression Summary for Dependent Variable: Rport10 R= .81953454 R ² = .67163686 Adjusted R ² = .66899940
Regression Summary for Dependent Variable: Rport11 R= .81827901 R ² = .66958055 Adjusted R ² = .66692657
Regression Summary for Dependent Variable: Rport12 R= .83232979 R ² = .69277289 Adjusted R ² = .69030520
Regression Summary for Dependent Variable: Rport13 R= .84504692 R ² = .71410430 Adjusted R ² = .71180795
Regression Summary for Dependent Variable: Rport14 R= .81328373 R ² = .66143042 Adjusted R ² = .65871099
Regression Summary for Dependent Variable: Rport15 R= .84498130 R ² = .71399340 Adjusted R ² = .71169616
Regression Summary for Dependent Variable: Rport16 R= .79895647 R ² = .63833145 Adjusted R ² = .63542648

MONTH ENDING LONG-TERM GOVERNMENT BOND YIELDS AND PRICE-EARNINGS SORTS

Regression Summary for Dependent Variable: Rport1 R= .70788450 R ² = .50110046 Adjusted R ² = .49709324
Regression Summary for Dependent Variable: Rport2 R= .59880143 R ² = .35856315 Adjusted R ² = .35341105
Regression Summary for Dependent Variable: Rport3 R= .55202062 R ² = .30472677 Adjusted R ² = .29914224
Regression Summary for Dependent Variable: Rport4 R= .49427176 R ² = .24430457 Adjusted R ² = .23823473
Regression Summary for Dependent Variable: Rport5 R= .72935599 R ² = .53196015 Adjusted R ² = .52820080
Regression Summary for Dependent Variable: Rport6 R= .73191981 R ² = .53570661 Adjusted R ² = .53197734
Regression Summary for Dependent Variable: Rport7 R= .71237729 R ² = .50748141 Adjusted R ² = .50352543
Regression Summary for Dependent Variable: Rport8 R= .75302008 R ² = .56703924 Adjusted R ² = .56356164
Regression Summary for Dependent Variable: Rport9 R= .78583047 R ² = .61752953 Adjusted R ² = .61445748
Regression Summary for Dependent Variable: Rport10 R= .81950272 R ² = .67158470 Adjusted R ² = .66894683
Regression Summary for Dependent Variable: Rport11 R= .81513162 R ² = .66443955 Adjusted R ² = .66174429
Regression Summary for Dependent Variable: Rport12 R= .83357795 R ² = .69485220 Adjusted R ² = .69240122
Regression Summary for Dependent Variable: Rport13 R= .85098657 R ² = .72417814 Adjusted R ² = .72196270
Regression Summary for Dependent Variable: Rport14 R= .81187340 R ² = .65913841 Adjusted R ² = .65640057
Regression Summary for Dependent Variable: Rport15 R= .85913437 R ² = .73811187 Adjusted R ² = .73600835
Regression Summary for Dependent Variable: Rport16 R= .80119805 R ² = .64191831 Adjusted R ² = .63904215

AVERAGE MONTHLY LONG-TERM GOVERNMENT BOND YIELDS AND BOOK-TO-MARKET SORTS

Regression Summary for Dependent Variable: Rport1 R= .60314764 R ² = .36378708 Adjusted R ² = .35867694
Regression Summary for Dependent Variable: Rport2 R= .62775185 R ² = .39407238 Adjusted R ² = .38920550
Regression Summary for Dependent Variable: Rport3 R= .64331024 R ² = .41384806 Adjusted R ² = .40914002
Regression Summary for Dependent Variable: Rport4 R= .41971221 R ² = .17615834 Adjusted R ² = .16954114
Regression Summary for Dependent Variable: Rport5 R= .74952633 R ² = .56178972 Adjusted R ² = .55826996
Regression Summary for Dependent Variable: Rport6 R= .68975693 R ² = .47576463 Adjusted R ² = .47155390
Regression Summary for Dependent Variable: Rport7 R= .67238449 R ² = .45210090 Adjusted R ² = .44770010
Regression Summary for Dependent Variable: Rport8 R= .79568657 R ² = .63311712 Adjusted R ² = .63017027
Regression Summary for Dependent Variable: Rport9 R= .77443078 R ² = .59974304 Adjusted R ² = .59652812
Regression Summary for Dependent Variable: Rport10 R= .83185104 R ² = .69197615 Adjusted R ² = .68950206
Regression Summary for Dependent Variable: Rport11 R= .86091647 R ² = .74117717 Adjusted R ² = .73909827
Regression Summary for Dependent Variable: Rport12 R= .79266266 R ² = .62831409 Adjusted R ² = .62532866
Regression Summary for Dependent Variable: Rport13 R= .84904869 R ² = .72088368 Adjusted R ² = .71864178
Regression Summary for Dependent Variable: Rport14 R= .80593301 R ² = .64952802 Adjusted R ² = .64671298
Regression Summary for Dependent Variable: Rport15 R= .81170931 R ² = .65887200 Adjusted R ² = .65613202
Regression Summary for Dependent Variable: Rport16 R= .81582854 R ² = .66557621 Adjusted R ² = .66289007

MONTH ENDING LONG-TERM GOVERNMENT BOND YIELDS AND BOOK-TO-MARKET SORTS

Regression Summary for Dependent Variable: Rport1 R= .60484815 R ² = .36584129 Adjusted R ² = .36074764
Regression Summary for Dependent Variable: Rport2 R= .62576650 R ² = .39158372 Adjusted R ² = .38669684
Regression Summary for Dependent Variable: Rport3 R= .64278833 R ² = .41317683 Adjusted R ² = .40846339
Regression Summary for Dependent Variable: Rport4 R= .42357272 R ² = .17941385 Adjusted R ² = .17282279
Regression Summary for Dependent Variable: Rport5 R= .75084898 R ² = .56377419 Adjusted R ² = .56027037
Regression Summary for Dependent Variable: Rport6 R= .70301510 R ² = .49423023 Adjusted R ² = .49016782
Regression Summary for Dependent Variable: Rport7 R= .67093021 R ² = .45014735 Adjusted R ² = .44573086
Regression Summary for Dependent Variable: Rport8 R= .79703707 R ² = .63526809 Adjusted R ² = .63233851
Regression Summary for Dependent Variable: Rport9 R= .77466328 R ² = .60010319 Adjusted R ² = .59689117
Regression Summary for Dependent Variable: Rport10 R= .83492601 R ² = .69710144 Adjusted R ² = .69466852
Regression Summary for Dependent Variable: Rport11 R= .86094203 R ² = .74122118 Adjusted R ² = .73914263
Regression Summary for Dependent Variable: Rport12 R= .79557394 R ² = .63293789 Adjusted R ² = .62998960
Regression Summary for Dependent Variable: Rport13 R= .85318352 R ² = .72792211 Adjusted R ² = .72573675
Regression Summary for Dependent Variable: Rport14 R= .81502693 R ² = .66426890 Adjusted R ² = .66157226
Regression Summary for Dependent Variable: Rport15 R= .82203573 R ² = .67574273 Adjusted R ² = .67313826
Regression Summary for Dependent Variable: Rport16 R= .81533852 R ² = .66477691 Adjusted R ² = .66208435

APPENDIX 4

CALCULATION OF MARKET FACTOR

	79MC	1980JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES
1 METAIR	0.9374	0.2	-0.0833	0.090909	-0.08333	0.090909	0.2	0.111111	0.0625	-0.11765	0.066667	0.125	0.055556
2 YORKCOR	0.97664											0.231884	-0.05882
3 EUREKA	1.04	-0.045	0						0.055556	0.078947	0.195122	0	0.102041
4 ADONIS	1.254	-0.125	0.190476	0.06	-0.15094	0.444444	0	0.292308	0.107143	-0.19355	0.04	-0.03846	0
5 CONFED	1.7325	0	0	0.176471	-0.00385	-0.036	0	0.244813	0.166667	0	0	0	0
6 WESCO	2.8882	0.15942	0	0.375	-0.04545	0.304762	0.021898	0.428571	-0.0775	-0.11111	0.09375	-0.02857	-0.01176
7 SABLE	3.13384	0.357143	0.263158	-0.08333	-0.04545	-0.14286	0	0.166667	0.114286	0.794872	0.042857	0.023256	-0.27273
8 NINIAN	3.255	0.266667	0.184211	-0.01333	0	0.095238	0.086957	0.08	0.222222	0.039394	-0.01493	-0.04545	-0.04762
9 ALTRON	3.58015				-0.06034	0.07156	0	0.137931	-0.01515	0	-0.03077	-0.04762	0.025
10 FINTECH	3.649	0.229885	-0.06542	0.105263	0.047619	0.181818	0	0	-0.11538	0.086957	0.12	-0.07143	0
11 GUBINGS	3.6558	0.022222	0.086957	0.072	0.19231	0.037736	0.163636	0.015625	0.015385	-0.06061	0	-0.01361	-0.10345
12 MOBILE	3.69225	0	0.027027	0.052632	0.15	-0.08696	0.097561	0.088889	0.020408	0.28	0.015625	-0.01231	0.016393
13 PUTCO	3.978	0.103448	0	-0.0625	-0.06667	0	-0.07143	0.103846	0	0.25	0.085714	0.105263	-0.11905
14 MASONITE	4.455	0.2	0.208333	-0.06897	-0.07407	0.16	0	0.337931	0.027778	-0.08108	0.029412	-0.02857	0.117647
15 COATES	4.964	0.125	0.016667	0.088235	-0.02703	-0.02778	-0.05714	0.151515	0.105263	-0.04762	0.05	0	-0.02381
16 SEARDEL	5.60196	0.285714	0.148148	-0.0129	0.133333	0.029412	0	0.171429	0.487805	-0.09836	0.163636	0.059375	0.060606
17 TRENCOR	5.67936	0.282609	0.016949	-0.03333	0.034483	0.201667	0	0	0.142857	0.125	0.016667	0.091803	0
18 AF-&-OVER	6.65	0.1	0.121212	0.013514	-0.01333	0.027027	-0.02632	0.040541	0.038961	-0.025	-0.10256	0.077143	0
19 AMAPROP	7.24063	0.216216	-0.03333	0.034483	-0.03333	0.034483	0.2	-0.01389	0.126761	-0.0625	0.026667	-0.12987	0.029851
20 CROOKES	7.425	0.25	-0.13333	-0.01538	0.015625	-0.07692	0.033333	0.25	0.133333	0.029412	0	0.142857	0
21 TOYOTA	11.50961	0.241379	0.111111	0.275	0.107843	0.146903	0.032258	0.195313	0.176471	-0.11932	0.070968	0.024096	0.082353
22 REX-TRUE	11.592	0.040816	0.098039	0.017857	0.052632	-0.01667	-0.02542	0.008696	0.051724	-0.04918	0	-0.13793	0.032258
23 CHEMSERVE	11.79936	0.073171	0	0.0375	-0.10112	0.0875	0	0.068966	0.172043	-0.0367	0.015238	0.029126	-0.01887
24 POWTECH	11.94312	0.07	0.028037	-0.1	-0.12121	0.068966	-0.03226	0.122222	0.168317	-0.08475	-0.0463	-0.12621	0.055556
25 BOUMAT	11.961	0.158025	0	0.043478	0.0625	0	0.068627	0.066055	-0.00885	-0.05357	0.018868	0.111111	-0.025
26 GROUP-5	12.40245	0.148148	-0.03226	0.133333	-0.06061	0.16129	0	0.194444	-0.02326	-0.01429	0.025	-0.02439	0.125
27 CADSWEP	12.86256	0.2	0.116667	0.008955	0.0625	0.102941	0.026667	0.090909	0.333333	-0.12727	0.020833	-0.04082	-0.04255
28 CEMENCO	14.02179	0.153846	-0.06667	-0.03571	0	0.148148	-0.00484	0.033333	0.016129	-0.07937	-0.13793	-0.02	0.1
29 NUCLOCKS	14.7	-0.06746	0.106383	0.096154	-0.05357	0.188679	0.015873	0.015625	0.092308	-0.15493	0.15	-0.06667	0.031746
30 BATSA	14.8	0.222222	0	0.136364	-0.08	0.065217	0.030702	0.148936	0.166667	0.031746	-0.07538	0.189655	-0.10145
31 REUNERT	15.876	0.118182	0	0.04878	0.007937	0.031496	0	0.030534	0.111111	0.08	0.453086	-0.08696	0.1619
32 NEI-AFR	22.11495	0.151163	-0.05051	0.06383	0.002	0.166667	-0.00893	0.054054	0.169231	0.044776	0	0	0
33 CULLINAN	22.2956	-0.04651	0.073171	-0.04545	-0.14286	0.114286	0.076923	0.190476	0.1	-0.05455	0.013462	-0.01961	-0.16
34 ELLERINE	23.115	0.111111	0.1125	0.011236	0.031111	0.066667	0.010417	0.072165	0.009615	0.099048	-0.03571	-0.02778	0.009524
35 METKOR	24.86604	0.066667	-0.0375	-0.03896	0	0.175676	0	0.206897	-0.02857	-0.15686	0.093023	-0.11702	0.031325
36 PLATE-GL	26.24733	0.009901	0.04902	0.074766	-0.0087	0.140351	0.061538	0.111594	0.129252	-0.01807	0.055215	0.046512	-0.06111
37 ADCOCK	26.8975	0.137931	0.090909	0.046667	-0.0274	0.014085	0.013889	-0.0137	0.055556	0.018421	-0.05263	0	0
38 OCEANA	27.99461	0	0	0.010101	0.43	0	0	-0.016	0	0.081301	0	0.01626	0
39 TIB	31.68	0.102941	0.026667	-0.02675	-0.0137	0.027778	0.108108	0.02439	0.047619	0.094318	-0.03191	0.043956	-0.02105
40 HLH	33.76842	0.091954	0.094737	-0.05769	0	-0.03265	0.098901	0.06	0.188679	-0.04762	0.008333	0.028099	-0.08197
41 TEGKOR	39.77916	0.102941	0.026667	-0.03974	-0.02778	0.028571	-0.34722	0.787234	0.071429	0.114444	-0.07143	0.043956	-0.01053
42 PEKOR	39.984	0.061947	0.066667	0.023438	-0.09924	0.135593	-0.0597	0.190476	0.033333	0.025806	0.069182	-0.07647	-0.04459
43 IPROP	45.64304	0.098039	0.098214	-0.15447	-0.03846	0.13	0.185841	0.134328	0.092105	0.174699	-0.10256	-0.01829	0.005988
44 MALBAK	48.2416	0.073171	0.240909	0.056604	0.017857	0.017544	0.068966	0.129032	0.014286	0.016901	0.086957	-0.02667	0
45 FOSCHINI	48.2866	0	0	0	0.0122	0.145833	0.018182	0.071429	0.108333	0.037594	0.027536	0.092857	-0.01961
46 ALTECH	49.13568	0.05	0.166667	0.093878	0.026119	-0.02545	0.153846	0.066667	0.0125	-0.01852	0.006289	0	0.1
47 DUNLOP	53.7	0.123288	0.15122	0.022222	-0.04348	0.181818	0.009615	0.209524	-0.02677	-0.03333	0.051724	-0.01639	0.058333
48 PICKNPAY	60.57862	0.033435	0.147059	0	-0.02564	0	0.017368	0.066667	0.125	-0.03111	0.066514	0.033548	-0.05263
49 ROMATEX	68.1252	0.191011	-0.00943	0.028571	0.064815	0.093913	-0.00826	0.025	0.138211	-0.08571	0.09375	-0.09429	-0.01639
50 M&R-HLD	69.34368	0.069307	0.037037	-0.0625	-0.06095	0.030928	0.08	-0.06481	0.079208	0.055046	0.123478	-0.02419	-0.04132
51 DORBYL	70.68263	0.162	0.127273	0.064516	-0.10606	0.033898	0.02459	0.056	0	-0.09848	0.02521	0.008197	0.03252
52 TONGAAT	78.642	0.310204	0.079365	0	-0.11765	0.141667	0.021898	0.081429	0.103448	-0.05	-0.03947	0.020548	-0.0604
53 PPC	96.43712	0.098361	0.074627	-0.01389	0	0.033803	0.027778	0.135135	0.083333	-0.03846	0.005714	0.054545	0.005587
54 AFROX	100.95509	0.142857	0	0.05	0.071429	0.111111	0.044	0.058824	0.046296	-0.14159	0.103093	-0.03364	0
55 REMBR-BEH	104.4	0.15	0	0.024565	-0.09783	0.096386	0.076923	0.091837	0	0.090093	-0.07895	0.095238	-0.07826
56 SAPPI	140.98163	0.039216	0.256604	0	0.03125	0.121212	0.027027	0.118421	-0.06471	0.025641	0.05625	-0.04142	-0.04938
57 TIGBRANDS	150.35463	0.003663	0.058394	0	0.01931	0.215278	-0.09714	0.012658	0.05	0.002976	0.060606	-0.03429	0.005917
58 PREM-GRP	153.15632	-0.02013	0.109589	-0.08642	0.067568	0.075949	0.055294	0.005714	0.068182	0.053191	0.035354	-0.07317	0.007368
59 HIVELO	163.30883	0.084507	0.088312	-0.02439	0.0125	0.160494	0.074468	0.029703	0.086538	-0.12844	0.052632	-0.046	-0.06709
60 NAMPAK	164.13911	0.056338	0.12	-0.04762	-0.025	0.089744	-0.02235	0.061728	-0.0407	0.018182	0.02381	-0.01744	-0.0122
61 SABPLC	302.4708	0.026119	0.109091	0.016393	-0.01613	0.155738	-0.01471	0.134328	0.026316	-0.01282	0.057143	-0.00123	-0.0375
62 BARWORLD	812.17444	0.038217	0.233129	-0.07463	-0.02151	0.10989	0.049505	0.106604	0	-0.00866	0.069869	-0.03673	-0.07018
63 AECI	905.51601	-0.07317	0.245614	0.011268	-0.00714	0.107914	0.025974	0.107595	0.077714	-0.04865	0.125	-0.13131	-0.02326
MARKET FACTOR	1980	0.105461	0.067132	0.022767	-0.00668	0.084552	0.025128	0.112913	0.074683	0.004178	0.034757	-0.00096	-0.00993

	80MC	1981JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 EUREKA	1.417	0.425856	0.066667	0.075	-0.069767	0.2	-0.083333	-0.022727	-0.116279	-0.013158	0	0.04	-0.083077
2 METAIR	2.0056	-0.031579	-0.130435	-0.025	0.153846	0	0.084337	-0.044444	0.197674	0.359223	-0.071429	-0.1	0.111111
3 ADONIS	2.4753	-0.2	0.036364	0.052632	0.083333	0.076923	-0.028571	-0.161765	0.105263	0.142857	-0.083333	-0.030303	0.1875
4 CONFED	2.695	0	0.184971	0	0	0	0	-0.122807	0	0	0	0	0
5 PUTCO	3.315	0.054054	-0.205128	0.451613	-0.074074	-0.112	0.036036	-0.056522	0.047619	0.181818	0.346154	-0.228571	0.059259
6 YORKCOR	3.68256	-0.025	0	-0.128205	-0.166667	0.018182	0.071429	-0.166667	0.18	0.237288	0.085714	-0.078947	0.114286
7 FINTECH	4.715	-0.115385	0.130435	0	-0.016393	0.141667	-0.233577	0	0.142857	-0.041667	0	-0.086957	0.142857
8 MOBILE	5.71615	0	-0.032258	0.116667	0.029851	0.157971	0.048593	-0.109756	0	0.123288	0.036585	0.125882	-0.064444
9 GUBINGS	6.31641	0.038462	0	0.011111	-0.018868	-0.038462	-0.06	0	0.021277	0	0.020833	0.004082	-0.021739
10 NINIAN	6.62741	0.066667	0.015625	0.067692	0	0	0	0	0.044778	0.028571	-0.008333	-0.101449	0.048387
11 COATES	7.14	-0.170732	-0.023529	-0.033333	0.310345	-0.105263	-0.029412	-0.121212	0.241379	-0.055556	-0.029412	0.030303	0.029412
12 SABLE	8.16256	-0.15625	0	0.259259	0.029412	-0.085714	-0.03125	-0.096774	0.214286	0	0.029412	-0.051429	0.125
13 AF-&-OVER	9.25	-0.142857	0	0.333333	0	-0.025	-0.012821	0	0.012987	0.089744	0.058824	0	0.060241
14 MASONITE	9.72	-0.157895	0.09375	-0.028571	0.176471	-0.075	-0.054054	0.057143	0.243243	0.391304	0.146875	-0.107692	0.017241
15 TRENCOR	9.744	0	0.052632	0.125	0.111111	0.1488	0	-0.107143	0.12	0.142857	0.03125	0.05697	-0.05697
16 WESCO	11.30524	-0.212121	0.384615	0.111111	0.075	-0.023256	-0.119048	0.027027	0.236842	0.409091	-0.016129	-0.131148	0.226415
17 SEARDEL	11.99926	0.071429	-0.08	-0.004348	0.007407	-0.014706	-0.029851	-0.169231	0.122222	-0.00165	-0.008264	-0.083333	0.007273
18 CROOKES	15.65	0.015	0	0	-0.07	0.010753	0.037234	-0.042553	0	0.111111	0.05	0.009524	0.004717
19 REX-TRUE	16.184	0	-0.104167	0.069767	0.043478	0.041667	-0.02	0	0.040816	0.039216	0.037736	0.081818	0.045455
20 AMAPROP	17.94588	-0.231884	0.100629	0.2	0.142857	0.0625	-0.098039	-0.021739	0.244444	0.242857	0.028986	-0.070423	0.060606
21 BOUMAT	18.5442	0.018803	0	0	0.163793	0	-0.111111	0	0.033333	0.016129	-0.02381	0.03252	0.042017
22 ALTRON	19.1271	-0.02439	0.016667	-0.016393	0.05	0.030159	-0.04	-0.041667	0.086957	-0.008	0.064516	-0.045455	0.015873
23 GROUP-5	19.6018	-0.244444	0.176471	0.23	-0.06383	-0.022727	0	-0.069767	0.025	0.092683	0.093023	-0.106383	0.190476
24 OCEANA	20.33651	0	0.32	0.212121	0.09	0	-0.01	0	0	0.313131	0	0.2	0
25 CEMENCO	21.1823	0.076923	-0.107143	-0.02	0.061224	0.057692	0.132727	0	-0.133333	-0.038462	0	-0.028	0.098765
26 CHEMSERVE	22.7766	0.038462	0.074074	0.071429	0	0.016667	-0.057377	-0.113043	0.058824	-0.009615	0.087379	0.008929	0
27 CADSWEP	23.2944	-0.044444	0.023256	0.138636	0.021053	0.051546	-0.058824	0.020833	0.056122	0.009901	0.196078	-0.098361	0.054545
28 POWTECH	23.35168	-0.178947	0.038462	0.111111	-0.133333	0.192308	-0.236559	-0.126761	0.032258	-0.0625	0	-0.183333	0.326531
29 REUNERT	23.58	-0.066667	-0.035714	0.040741	0.012195	0.042169	0	-0.00578	0.017442	0.04	0	0.09011	-0.052632
30 BATSA	25.68	-0.016129	0.032787	-0.047619	0.066667	0.045313	-0.0625	-0.083333	0.036364	0.052632	0.085	-0.015873	0.032258
31 NUCLICKS	30	-0.123077	0	0.210526	0.02029	0.072464	-0.027027	0	0.125	0.246914	0.040404	0.262136	-0.092308
32 ADCOCK	31.535	-0.097222	-0.015385	0.041875	0	0	0	0	0	0.213125	0.157895	-0.090909	0
33 ELLERINE	33.258	0	-0.037736	0	0.1	-0.074074	-0.02	0	0.020408	0.048	0.17	-0.145299	0.1
34 NEI-AFR	35.6726	0.028571	-0.097222	0.123077	0.013699	0.035211	-0.006803	-0.027397	0.123944	0.038462	0.024691	0.024096	0.023529
35 PEKOR	35.896	0	0.013333	0.348684	-0.02439	0.135	-0.061674	-0.014085	0.047619	0.072727	0.101695	-0.115385	0.104348
36 TOYOTA	36.39965	-0.130435	0.1	0.164773	0.043902	0.135514	-0.173913	0.078947	0.141463	0.272321	0.073684	-0.107843	0.040293
37 CULLINAN	39.62916	0.047619	0.022727	0.022222	0.004348	0.033333	-0.010753	-0.021739	0.1	0.185859	0.011925	-0.070175	0.075472
38 TIB	48.576	0.010753	-0.095745	0.039529	0.139353	0.163265	0	0.017544	0.034483	0.032833	0.140496	-0.028986	0.007463
39 TEGKOR	60.41772	0	-0.06383	0.038182	0.078652	0.166667	0.017857	0	0.052632	0.1245	0.045455	-0.057971	0.038462
40 METKOR	63.13416	-0.088608	0.013889	0.09589	0.1625	-0.064516	-0.022989	0.058824	0.055556	0.021053	0.146907	-0.028571	-0.009804
41 HLH	64.56681	0	-0.053571	0.09434	0	-0.006821	0.036364	0.017544	0.060345	-0.04878	0.051282	0.082927	0.107692
42 FOSCHINI	72.6724	-0.093333	0	-0.044118	0.038462	0.168004	0.010101	0.006667	0.033113	0.153846	0.070444	0	0.052632
43 PLATE-GL	86.18967	-0.074074	0.066667	0.09375	-0.022857	0.040936	0.011236	0.027778	0.057471	0.048913	0.067358	0.067961	0.065455
44 PICKNPAY	90.91644	-0.111111	0.025	0.121951	0.097826	0.134021	-0.004545	-0.086758	0.21	0.115702	0.093481	-0.808219	-0.071429
45 MALBAK	91.75968	-0.123288	-0.015625	0.126984	0.072464	0.121622	0	0	0.036145	0.090698	0.066667	0	0.020833
46 DUNLOP	92.25	-0.023622	-0.019355	0.078261	0.032258	-0.0625	0.025	0.02439	0.088889	0.098485	0.062069	-0.071429	0.048951
47 DORBYL	105.00526	0.069291	-0.03125	0.129032	0	0.035714	-0.048276	0.014493	0	0.1	0.006494	-0.083871	0.042254
48 ALTECH	105.15384	-0.005682	-0.085714	0.0125	0.018519	0	0.046875	-0.149254	0.052632	0.12	-0.017857	-0.060606	0.032258
49 M&R-HLD	105.39354	-0.094828	0.028571	0.12963	0.059016	0.062992	-0.081481	-0.016129	0.032787	0.15873	0.171233	-0.091463	0.040268
50 IPROP	125.76642	-0.27381	0.065574	0.153846	-0.013333	0.108108	-0.170732	0.066176	0.113103	0.040892	-0.077381	0.006452	-0.006667
51 WOOLTRU	145.64544							0.056338	0.026667	0.225974	0.01087	-0.032258	0.022222
52 AFROX	153.37984	-0.05	0.094737	0.038462	0.009259	0.027523	-0.028571	-0.056604	0.05	0.047619	0.072727	-0.001695	-0.017544
53 ROMATEX	157.4502	-0.05	0	0.105263	-0.007937	0.0592	-0.015625	-0.02381	0.04065	0.046875	0.19403	-0.07	0.042254
54 PPC	159.58904	-0.011111	-0.022472	0.022989	0.033708	-0.075	-0.02994	0.012346	0.036585	0.041176	0.028249	-0.021978	0
55 CGSMITH	163.383		0.09375	0.028571	0.013889	0.013699	-0.043243	0	0.043478	-0.033333	0.063218	-0.027027	0.094444
56 REMBR-BEH	164.16	-0.132075	0.032609	0.144842	0.188679	0.071429	-0.014815	-0.007519	0.128788	0.197181	-0.085714	-0.04375	0.058824
57 TIGBRANDS	192.51837	-0.058824	0	0.14375	0.042623	-0.139785	0.140625	0.013699	0.040541	0.021818	0.054545	-0.073892	0.077128
58 PREM-GRP	207.48542	0.032086	-0.010363	0.308901	-0.1	0.004444	0.043363	-0.108696	0.102439	0.172566	0.086792	0.020833	0.032653
59 SAPPI	230.641	-0.142857	0.260606	0.025316	0.049383	0.052941	-0.094972	0.117284	0.022727	0.011111	0	-0.038462	0.085714
60 TONGAAT	232.603	-0.125714	-0.091667	0.06422	-0.017241	0.122807	-0.0625	0.12	0.087302	0.036496	0.014085	0.041667	-0.013333
61 NAMPAK	259.2629	-0.061728	0.065789	0.012346	0.036585	0	-0.054545	0.025641	0.0625	0.047059	-0.033708	-0.024419	0.037037
62 HIVELD	330.15438	0	-0.033708	0.190476	-0.07	0.064516	0.080808	-0.056075	0.063366	0.009709	-0.057692	0.071429	-0.057143
63 SABPLC	669.43905	-0.025974	0.026667	0.064935	0.004878	0.105583	-0.103448	0.038462	0.093827	0.072235	0.021053	0.004124	0.037736
64 SASOL	931.725	-0.105882	0	0.111842	0.082324	-0.105145	-0.075	0.013514	0.045333	0.059949	-0.041975	-0.012887	0.031332
65 AECI	1329.47984	-0.083333	0.12987	0.1	0	-0.05914	-0.051429	0.024096	0.14	0.026455	0.020619	-0.010101	0.010204
66 BARWORLD	1479.24275	-0.070755	0.005076	0.111111	-0.027273	0.047664	-0.145455	0.047872	0.015228	0.04	0.038462	0.063889	-0.045455
MARKET FACTOR	1981	-0.04972	0.021542	0.089657	0.031921	0.033632	-0.027974	-0.022712	0.071173	0.090166	0.044699	-0.036428	0.041472

	81MC	1982JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 ADONIS	2.30805	0.013158	0.014493	-0.071429	-0.046154	-0.064516	0.068966	0.080645	-0.076923	0.083333	-0.138462	0.160714	-0.153846
2 CONFED	2.695	0	0	0.011561	0.037143	-0.037143	0.186944	0	0	0	0.125	0	0
3 METAIR	2.69654	0.076923	-0.035714	-0.037037	-0.115385	-0.06087	0	-0.074074	0.05	0.047619	0.272727	-0.035714	0.088889
4 YORKCOR	3.54816	0.153846	0.088889	-0.153061	0	-0.025	0	0	0	0	-0.076923	0	-0.111111
5 CONCOR	3.71448	0.2	-0.166667	-0.04	0	-0.214286	0.272727	0.214286	0	-0.176471	0.121429	0	0.133333
6 GUBINGS	4.81347	-0.022222	0.022727	0	-0.044444	0.036647	-0.046512	-0.073171	0	0	0.184211	-0.017778	0
7 FINTECH	4.879	0.125	0.037037	0	-0.264286	-0.031579	-0.184783	0	-0.066667	0.028571	0.25	-0.055556	0.117647
8 COATES	5.61	0.114286	0.041026	-0.189189	0	0	-0.066667	-0.035714	0.037037	0	0.214286	0.058824	-0.055556
9 EUREKA	6.0372	0.127168	0	0	-0.230769	-0.033333	-0.012474	0	0.070175	0	0.04459	0.048387	-0.015385
10 NINIAN	8.28818	0.015385	0.254545	-0.269231	0.017544	0.068966	-0.080645	0	0.052632	-0.083333	-0.018182	-0.019231	0.019608
11 AF-&-OVER	9.625	0.034091	0	-0.043956	0.011494	0	-0.090909	0	0	0	0.15	0.113043	0
12 PUTCO	11.016	-0.071429	0	-0.153846	0.109091	0.147541	0.142857	0.084375	0	0.235294	0.071429	-0.022222	0.2
13 MOBILE	11.1588	0.211401	-0.019608	-0.03	0	-0.029897	0	0	-0.152174	0.025641	0.075	0.17907	-0.052632
14 SABLE	12.3896	0.055556	0.210526	-0.195652	0.297297	-0.145833	-0.268293	0	0.2	0	0.083333	0.230769	0.079167
15 REX-TRUE	13.72	0	0.008696	0.034483	0.016667	-0.016393	0	0	0.016667	0.04918	0.09375	0	0.085271
16 MASONITE	14.58	-0.033898	0	-0.192982	0.065217	-0.040816	-0.021277	0	0.086957	0.228	-0.055556	0.019608	0.076923
17 CEMENCO	17.0825	-0.138577	-0.043478	-0.136364	-0.052632	0	0.008333	-0.117647	0.066667	0.09375	0.228571	-0.046512	0.090244
18 POWTECH	17.24096	0.030769	-0.208955	-0.056604	0.1	-0.109091	-0.048816	0.12766	-0.018868	0.134615	-0.067797	0.018182	0.071429
19 BATSA	19.32	0.15	-0.130435	-0.140625	0	0.009091	-0.076923	-0.041667	0.282609	0.123729	0.046875	0.029851	0.057971
20 TRENCOR	19.488	0.140746	-0.042254	-0.014706	0	0.012537	-0.030303	-0.015625	-0.015873	0.032258	0.015625	0.064	0.046154
21 GROUP-5	21.03823	0.02	-0.098039	-0.017391	-0.142857	-0.083333	-0.030303	0	0.34375	0.023256	-0.045455	0.428571	0.17
22 OMNIA	25.3793								-0.073171	-0.026316	-0.043243	0.016949	0.055556
23 WESCO	26.71836	0.046154	-0.161765	-0.203509	0.145374	-0.080769	-0.043478	0.25	0.12	0.055195	0.2	-0.102564	0.042857
24 SEARDEL	28.15152	0.132075	-0.066667	-0.216071	0.082353	-0.152174	-0.038462	0.053333	-0.139241	0.176471	-0.075	-0.075676	0.265625
25 BOUMAT	28.2931	-0.024194	-0.008264	-0.1	-0.018519	-0.150943	0	0.027778	0.079545	0.157895	0.2	-0.090909	-0.033333
26 CADSWEP	28.6116	0.043103	0.016529	-0.197561	0.021739	0.042553	-0.061224	0.043478	0.048958	-0.05102	0.204301	0.071429	0.025
27 CROOKES	30	-0.005164	0.060752	0	0	0.045455	0	-0.033478	0	0	-0.139535	0	0
28 CHEMSERVE	30.69418	0	0	-0.238938	0.0375	0.156627	-0.041667	0.043478	-0.072917	0.152941	0.05102	-0.097087	0.075269
29 ELLERINE	33.81	0.081818	0.058824	-0.214286	0.060606	-0.02	0	0.020408	0.06	0.088679	0.154545	0.023622	0.023077
30 NUCKLICKS	36.2	-0.008475	-0.230769	0	0.197778	-0.245283	0.025	0.121951	0.217391	0.029464	0.115044	-0.015873	0.048387
31 PEKOR	42	-0.035433	-0.081633	-0.137778	0.134021	-0.118182	-0.149485	0.066667	0.096591	0.26943	-0.265306	0.022222	0
32 NEI-AFR	44.69385	0	0.111494	-0.030682	0.006173	0.042945	-0.029412	-0.030303	0.0525	0.036585	0.294118	-0.159091	0.016216
33 CULLINAN	45.64254	0.026316	-0.145299	-0.21	0.093671	-0.071429	-0.179487	-0.0625	0.25	-0.106667	-0.014925	0.269841	-0.125
34 TIB	56.364	0.014815	-0.014599	-0.073333	0.008197	-0.04878	-0.076923	0.046296	0.415929	0.149	0	0	0.055556
35 TOYOTA	57.54805	-0.014085	-0.071429	-0.269231	0.2	0.057018	-0.052632	0.064815	0.234783	0.117216	0.065574	-0.169231	0.011111
36 HLH	63.923	-0.041667	-0.086957	-0.095238	0.061404	-0.142149	-0.010309	0.041667	0.05	0.066667	0.160714	-0.036923	0.02459
37 METKOR	65.14908	0.049505	0.056604	-0.196429	0.011111	0.043956	-0.021053	0.033333	0.075269	0	0.0425	0	0
38 REUNERT	66.885	-0.022222	0.034091	-0.142857	-0.038462	-0.006667	-0.027778	-0.007143	-0.100719	0.072	-0.014925	0.072727	-0.066667
39 TEKGOR	68.90616	0.014815	-0.014599	-0.088148	0.025	-0.073171	-0.052632	0.083333	0.367521	0.149	0.044444	-0.031917	0.043956
40 ALTRON	71.53416	0.015625	-0.076923	-0.083333	0	0.02	0	-0.018182	0.222222	0.392424	0.111111	0	0.1
41 AMAPROP	82.4791	-0.028571	-0.176471	-0.142857	0.083333	-0.15	-0.02381	0.121951	0.195652	0.181818	0.015385	-0.060606	0.048387
42 PICKNPAY	89.50968	0	-0.230769	-0.1	0.097144	-0.073684	-0.022727	0.139535	0.22449	0.25	-0.107333	0.101887	-0.041096
43 MALBAK	92.16738	0.020408	-0.08	-0.159783	0.04	-0.051282	-0.162162	0	0	0.095161	0.21875	0.025641	0.03
44 FOSCHINI	96.2628	0	0.1	-0.218182	0.023256	-0.033466	-0.05	0.105263	0.095238	0	0	0.127072	0.039216
45 IPROP	104.92938	0.107383	-0.151515	-0.235714	0.028037	-0.272727	0.05	0.428571	0.416667	0.041176	0.016949	-0.016667	0.047059
46 DUNLOP	111.9	-0.033333	0.015172	-0.086957	0.079365	-0.080882	0.016	0.141732	0.04	0.062069	0.006494	0.070968	-0.036145
47 PLATE-GL	121.45599	-0.004425	-0.111111	-0.15	0	-0.235294	-0.038462	0.152	0.121212	0.114865	0.10303	0.098901	-0.005
48 DORBYL	123.56793	0.047297	-0.089041	-0.285714	0	-0.031579	-0.304348	0.5375	0.105263	0.152381	0.115702	-0.037037	0.015385
49 M&R-HLD	129.61728	0.012903	-0.019108	-0.227273	0.02521	-0.142857	-0.039216	0.081633	0.122642	0.134454	0.148148	0.068493	-0.032051
50 ALTECH	142.0056	0.03125	-0.030303	-0.203125	0.019608	0.063846	0	0.075758	0.126761	0.375	0.045455	0.065217	0.010204
51 ROMATEX	157.6884	0.013514	-0.006667	-0.114094	-0.037879	-0.225197	-0.053191	-0.011236	0.068182	0.06383	0.26	0.046032	-0.024
52 PPC	159.2292	0	-0.011765	-0.178571	-0.043478	-0.001515	0.015625	0.038462	0.044444	0.134752	0.0625	0.052941	0.058824
53 AFROX	162.66651	-0.008929	-0.126126	-0.14433	0.036145	-0.209302	0.061765	0.115942	0.142857	0.181818	0.057692	0.118182	-0.058824
54 REMBR-BEH	176.4	-0.012346	-0.0625	-0.0424	0.057143	-0.094595	-0.089552	0.311475	0.25	0.122	-0.059091	0.140097	0.016949
55 TONGAAT	220.43	0.422973	-0.029126	-0.11	0.067416	-0.121053	-0.106587	0.014286	0.035211	0.061224	-0.025641	0.032895	0.044586
56 WOOLTRU	242.88572	-0.00543	-0.114754	-0.092593	0.034965	-0.108108	-0.060606	0.112903	0.101449	0.219737	0.072222	0.036269	0.01
57 PREM-GRP	264.66033	-0.026846	-0.006897	-0.284722	0.067961	0.090909	-0.060833	0.009174	0.340909	-0.050847	0.132143	0.11041	0.010795
58 SAPPI	271.1687	0.021053	0.01134	-0.130435	0.1125	-0.148067	-0.105263	0.102941	-0.033333	0.121429	0.050955	0.151515	0.031579
59 NAMPAK	288.068	0.071429	-0.044444	-0.069767	0	-0.0775	-0.091549	0.24031	0.03125	-0.006061	0.073171	0.144318	-0.025641
60 HVELD	361.14903	0.070707	0.020755	-0.250943	0.108312	-0.090909	-0.05	0.171053	0.11236	0.072727	-0.15534	0.034483	0.011111
61 CGSMITH	598.40544	-0.078947	-0.057143	-0.045455	0.079365	-0.235294	-0.038462	0.1875	0.070175	0.02623	0.054313	0.072727	0.108824
62 SABPLC	854.0352	-0.016162	-0.039014	-0.102564	0.059524	-0.035955	-0.037037	0.051282	0.097561	0.148889	0.096712	0.128748	0.02381
63 BARWORLD	1292.11392	-0.02381	-0.058537	-0.093264	0.002286	-0.173318	-0.053793	0.172932	0.057692	0.169697	-0.082902	0.179661	0.040201
64 SASOL	1447.5	-0.012658	-0.089744	-0.123944	0.083333	-0.107692	0.017241	0.091525	0.086957	0.151429	0.05641	0.067961	-0.052273
65 AECI	1529.1243	-0.010101	-0.102041	-0.180682	0.021789	-0.078014	-0.053846	0.138211	0.055714	0.132867	-0.12963	0.092199	0.012987
MARKET FACTOR	1982	0.031758	-0.035588	-0.124481	0.028612	-0.061529	-0.0361	0.073361	0.082608	0.084036	0.064077	0.037619	0.022066

	82MC	1983JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 ADONIS	2.1408	0	0.2	0	0.166667	-0.07143	-0.03077	0.142857	-0.02857	-0.08824	-0.03226	-0.08333	0.109091
2 YORCOR	2.7776	0	-0.04688	0.180328	0.028571	0.166667	0.011905	-0.03529	0	-7E-17	-0.0201	0	0
3 METAIR	3.10442	0.592593	0.116279	-0.04167	0.152174	0.301887	0.060606	0	0.285714	0.111111	0.17	-0.01709	0.078261
4 CONFED	3.4111	0.011236	0	0	0.075556	0.010638	0.031579	0.081633	0	0	0	0.067925	0
5 EUREKA	3.692	0	-0.125	0.089286	-0.08197	0.178571	0.015152	-0.01493	-0.06061	0.032258	0.03125	0.393939	0.037826
6 FINTECH	3.731	0	0.052632	0.05	-0.08247	0.123596	0.05	0.190476	-0.04	-0.08333	-0.06364	-0.02913	0.1
7 GUBINGS	4.16355	0.02439	0.095238	-0.02174	0.102222	0	0	0.083333	0	0.019231	-0.0566	0.024	0
8 COATES	5.44	0	0.341176	-0.07143	0	0.128205	0	0.022727	0.022222	0	0	0	-0.13043
9 NINIAN	6.65112	0.019231	0.075472	-0.03704	0.038462	0.111111	0.066667	0.03125	-0.21212	0.019231	0	-0.0566	0
10 GOLDSTEIN	8.7956	0	0	0	0	0	0	0	-0.08696	0.195238	0	0.26087	-0.06897
11 AF-&-OVER	10	0.106383	0.384615	0	0	0	0.111111	0.025	0.012195	0.024096	0	0	0
12 CEMENCO	10.9328	0.142857	0.041667	-0.04	0.083333	0.019231	0.024528	0.038462	0.111111	0	0.016667	0.114754	-0.04853
13 SABLE	12.68112	0.14	0.017544	0.034483	0.033333	0.193548	0.135135	-0.04762	-0.0625	0.066667	-0.1	-0.08333	0.101515
14 CONCOR	12.76084	-0.05882	0.125	-0.03333	0.094118	0.182796	0.136364	0.04	-0.09231	0.161017	-0.02256	0	0.038462
15 MOBILE	13.041	0.088889	0.22449	0	0	0.100833	0.015385	0.060606	0.057143	0	-0.08108	-0.00441	0
16 ALEXNDR	13.28	0	0	-0.05556	0.029412	0.085714	0	0.210526	0.021739	0.058511	-0.14894	-0.025	-0.02564
17 OMNIA	13.4361	0.105263	0	0	0	-0.02381	0.125	-0.13333	0.076923	0	0.02381	0.023256	0
18 SEARDEL	15.9904	0.111111	-0.06667	-0.04762	0.217949	-0.13684	0.04878	0.023256	0.102273	0.391753	-0.18519	0.036364	0.063636
19 PUTCO	16.3525	0.111765	0.083333	-0.19231	0.12381	-0.11017	0.095238	-0.01304	0.163636	-0.14063	0.063636	0.025641	0.108333
20 MASONITE	16.74	0.125	0.063492	-0.04478	0.078125	0.188406	0.04878	-0.01163	-0.03529	0.195122	-0.00612	-0.01111	0.033708
21 REX-TRUE	17.7	0.157143	0.074074	0.057471	0.086957	0.05	0.047619	0	0.090909	0	0	0.041667	0
22 GROUP-5	19.38457	0	0.066667	0.046875	0.104478	-0.10811	0.09375	0.028571	0.041667	0.173333	-0.02273	-0.01163	0
23 BATSA	22.2	0.068493	-0.02564	0.302632	0.010101	0.017	0	-0.08163	0.011111	-0.03297	-0.09302	0.025641	0.1
24 TRENCOR	22.59216	0	0	0	0	0.203529	0	0.25	0	0	0	0.0816	0
25 POWTECH	25.05209	0.216667	0.09589	0	0.2125	-0.02062	0.242105	0.016949	0.15	-0.02174	0	0.007407	0.014706
26 CHEMSERVE	27.74624	0.1	0.109091	0.065574	0.056452	-0.00763	0	-0.03846	0.032	0.024	-0.01563	-0.00794	-0.008
27 WESCO	30.16318	0.30137	0.052632	-0.02	0.22449	0.025	0.01626	0.008264	0.229508	0.1	-0.06061	0.032258	0.03125
28 CADSWEP	30.99168	0.02439	0.428571	-0.02389	-0.0119	0.174699	0.333333	-0.17308	0.06	0.066667	-0.16667	0.05	0.02381
29 OCEANA	31.31312	0	0	0.003937	0	0.047059	-0.01176	0	0.194444	0	0.488095	0.096	0
30 BOUMAT	32.04126	0.341379	0.146667	0.046512	0.188889	0.084112	-0.02596	0.130973	-0.088	-0.01754	0	0	0.098214
31 CROOKES	33	0.018919	0	-0.01087	0	0.098901	0.125	0.021778	0	0	0.258993	0	0
32 ADCOCK	33.39	0.1	0.227273	0.074074	0.103448	0.078125	0.014706	0	0.014493	0.028571	0.083333	0.109487	0
33 ELLERINE	34.362	0.037594	-0.0942	-0.024	0	0.282051	0	0.013333	0.092105	0.080723	0.149425	-0.01	0
34 CULLINAN	35.38482	0.085714	0	-0.05263	0.333333	-0.04167	-0.06522	-0.01163	0.058824	-0.04444	0.069767	-0.01124	0.113636
35 NUCLICKS	42	0.076923	0.035714	0.048276	0.093333	0.280488	-0.04762	0.01	0.138614	0.185217	-0.22222	0.066667	0.25
36 NEI-AFR	50.61222	0.117021	0.619048	-0.05529	0.032258	-0.0625	0.05	-0.04762	0.12	0.272727	-0.08333	0	0
37 REUNERT	52.078	0.150794	0.034483	-0.02	0.047619	-0.0039	-0.04	0.069444	-0.16883	-0.125	0.053571	-0.03932	-0.10714
38 TOYOTA	55.14852	0.391941	0.052632	0	0.4	0.080357	-0.0339	-0.08772	0.076923	0.279707	-0.15	0	0.07563
39 MALBAK	63.2385	0.128641	-0.01075	0.086957	0	-0.04082	-0.06383	-0.05682	0.012048	0.035714	0.070588	0.010989	0.086957
40 PEKOR	70.616	0.168478	0.116279	0.020833	0.061224	-0.33462	0.00578	0	-0.08046	0.08125	-0.01734	-0.01176	0.02381
41 TIB	84.48	0.168421	0.009009	0.024107	0.2	0.074074	0.034483	-0.03333	0.034483	0.016	0	-0.05	0
42 ALTRON	86.96331	0.181818	0.076923	-0.07143	0.307692	0.022353	0.102941	0.013333	0.052632	0.05	0	0	0.095238
43 HLH	87.4293	0.12	0.028571	0.027778	0.081081	0.03	0.025316	-0.12346	-0.04225	0.073529	-0.03425	0.198582	0.030488
44 FOSCHINI	102.6454	0.245283	0.136364	-0.03333	0.001586	0.085714	0	-0.02632	-0.02027	-0.0069	-0.01053	0	0
45 TEGKOR	105.9968	0.168421	-0.00901	0.087273	0.042553	0.183673	0.034483	-0.05	0.035088	0.032339	-0.05	0.010526	-0.01042
46 METKOR	106.192	0.1	0.018182	0	0.160714	0.076923	-0.05	0.076923	0	0.142857	-0.10625	-0.05594	0.068519
47 IPROP	107.53401	0.202247	-0.06542	-0.05	0.184211	0.044444	0.06383	0.04	0.076923	-0.03571	-0.2	0.078704	0.071429
48 AMAPROP	107.56295	0.153846	0.173333	-0.11364	0.230769	0.047917	0.072165	-0.03846	-0.04	-0.10417	-0.09302	0.025641	0.025
49 DORBYL	107.72865	0.112121	0.014286	-0.01408	0.071429	-0.02667	-0.0137	0.009722	0.014085	0.041667	-0.09333	0.029412	0.028571
50 ROMATEX	120.7674	0.032787	0.111111	-0.07143	0.115385	-0.02069	0	0	-0.07143	0.061538	-0.11594	0.039344	0.016393
51 PIKWIK	125.5092	0.277778	0	0.141304	0.331619	0.036364	0.122807	-0.09375	0.017241	-0.0339	-0.13463	0.061224	0.153846
52 M&R-HLD	130.47552	0.165563	0.125	-0.00505	0.101523	-0.04206	-0.05366	0	0.015464	0.270051	-0.08333	0	0.045455
53 PPC	135.47976	0.111111	0.13	-0.02655	0.045455	0.146957	0.019231	-0.0566	0.02	-0.03137	-0.1498	0.191429	0.020833
54 DUNLOP	143.547	0.25	0.186	-0.07895	0.047619	0.136364	0.02	-0.11765	0.025778	0.133333	-0.09804	0	0.021739
55 PLATE-GL	146.03994	0.015625	0	0.076923	0.214286	0.058824	0.077778	0.003436	-0.03571	0.092593	0.016949	-0.01	0.10101
56 ALTECH	155.45248	0.333333	0.060606	-0.1	0.214286	0.053595	0.134177	0	0.116071	0.04	-0.07692	0.104167	0.056604
57 AFROX	158.17296	0.017857	0.087719	0	0.048387	0.030769	0.068657	-0.05714	0.090909	0.041667	-0.13333	0.001538	0.079365
58 WOOLTRU	220.3677	0.287129	0	-0.06154	0.041667	0.04	-0.03846	-0.08	0.043478	0.1475	-0.11111	0.166667	0.035714
59 PICKNPAY	223.86793	0.321429	0.040541	0.12987	0.285977	0	0.145455	-0.10317	-0.00885	0	-0.11911	0.040816	0.117647
60 REMBR-BEH	254.88	0.0625	0.215686	-0.0329	0.237288	-0.0137	0.138889	-0.15854	0.014493	0.071943	-0.18919	0.1	0
61 TONGAAT	267.148	0.120732	0.077778	-0.09278	0.136364	0.045	-0.04306	-0.051	0	0.016484	-0.04865	0.068182	0.095745
62 NAMPAK	287.82602	0.115789	0.150943	-0.01639	0.166667	0.13	-0.01935	-0.09539	0.145455	-0.04762	-0.08333	0.045818	0.007143
63 TIGBRANDS	288.18102	0.26087	-0.07759	0.084112	0.068966	0.096774	0.007463	-0.02222	0.022727	0.007407	-0.08088	0.064	0.112828
64 SAPPI	294.42935	0.25	-0.07265	-0.04651	0.170732	0.016667	0.086066	-0.0566	0.04	-0.05882	-0.10417	0.023256	0.090909
65 PREM-GRP	302.94941	0	0.057143	0.135135	0.095238	0	0	-0.0404	0.031579	0	0.040816	-0.05882	0.02375
66 HIVELD	320.93469	0.230769	-0.10714	0.024	0.193878	0.042735	-0.05738	-0.10435	0	0.019417	-0.09615	0	0.095745
67 CGS-FOOD	370.77	0	0	0	0	0	0	0	0	0	0	0.062937	0
68 GENBEL	387.855	-0.07619	0.193299	0.044444	0.004255	-0.07839	-0.03448	-0.09524	0.215789	-0.1236	0.115385	0.114943	-0.13402
69 CGSMITH	669.669	0.074271	-0.01235	-0.025	0.205128	0.06383	-0.03	-0.05263	0	0.033333	-0.07527	0.081395	0.055556
70 SASOL	1095	0.079137	-0.11111	0.02	0.113924	0.029545	-0.04415	0.057737	-0.02838	0.011236	-0.03908	0.004785	0.02381
71 SABPLC	1096.7132	0.097674	0.031073	0.013699	0.139189	0.026097	0	-0.05952	-0.05696	0.026846	-0.03268	-0.02703	0.049296
72 AECI	1200.465	0.141026	-0.03371	0.024419	0.176471	-0.01	0	-0.09091	0.026667	0.055556	-0.07368	-0.125	0.090909
73 BARWORLD	1305.546	0.236715	-0.02344	-0.056	0.09322	0.023256	0.057576	-0.06545	-0.06615	0.1125	-0.07865	0.047967	0.024194
MARKET FACTOR	1983	0.130906	0.070314	0.003557	0.106057	0.05144	0.03447	-0.0102	0.026233	0.043111	-0.03343	0.031522	0.035526

	83MC	1984JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 ADONIS	2.1408	0.131148	0.153846	-0.2	0.083333	-0.046154	0.048387	-0.153846	-0.056604	0	-0.1	0.111111	0
2 YORKCOR	3.4944	0.076923	-0.02381	0.25122	0.030303	0	0.029412	0	-0.047619	-0.020408	-0.0625	0	0
3 CONFED	4.312	0.125	0	0	0.025397	-0.047619	0	0	0.05	0	0	0	0.011236
4 EUREKA	4.3472	-0.043478	0.136364	0.16	-0.062069	0.12782	0.066667	-0.125	0.175	-0.0625	0	-0.033333	0
5 FINTECH	4.756	0.545455	0.352941	0.226087	0.5	0.071429	-0.133333	-0.24359	-0.050847	-0.071429	0.096154	0	0.157895
6 GUBINGS	4.8744	0	0.25	0.11	0.015385	0.075758	0	0.070423	0	-0.105263	0.029412	0.151429	-0.064935
7 HARWILL	6.17142	0	1	0	0.56	-0.377778	0.071429	0.266667	-0.047368	0	0	-0.2	0.416667
8 NINIAN	6.42	0.02	0.098039	0.037037	0	0.142857	-0.0625	-0.066667	-0.142857	-0.083333	0	0	-0.045455
9 COATES	7.82	0.05	0.085714	-0.02381	0.219512	0.32	-0.108061	-0.101695	-0.245283	0	-0.1	0.177778	-0.080189
10 METAIR	14.63836	0.435484	-0.101124	0.1875	0.157895	-0.127273	0.048128	-0.132653	-0.047059	-0.012346	0	0.275	0.078431
11 OMNIA	14.929	0.068182	-0.06383	-0.090909	0.2	-0.027083	0.043478	0	0	-0.166667	0	-0.225	-0.064516
12 ALEXNDR	17.51629	0	0.048684	0	0	-0.026316	0	-0.135135	0.0625	0.080882	-0.088235	0.032258	-0.03125
13 SEARDEL	17.58944	0.068376	-0.024	0.065574	0.046875	-0.08209	-0.056911	-0.181034	-0.031579	-0.054348	0.011494	0.011364	0.058824
14 MOBILE	18.5976	0.023256	0	0.090909	0.215278	0.041714	0.083333	0.005128	-0.030612	-0.052632	-0.038889	-0.017052	0
15 AF-&OVER	19.65	0.05198	0.058824	0	0	-0.055556	-0.023529	0	-0.048193	0	-0.050633	-0.144	-0.125
16 CEMENCO	20.36234	0.048387	-0.030769	0.142857	-0.111111	-0.0625	-0.028333	0.071429	-0.116667	-0.037736	0.058824	0.037037	-0.023214
17 CONCOR	24.28676	0.259259	-0.058824	0.23125	-0.128205	-0.088235	-0.096774	-0.035714	-0.074074	-0.12	-0.036364	0.098039	0.026786
18 GOLDSTEIN	24.68765	0.111111	0.166667	0.188571	0.201923	0	0.04	0.038462	-0.092593	0.306122	-0.147541	0.038462	0.111111
19 BATSA	26.52	0.079545	0.157895	0.109091	-0.04918	0.034483	-0.086207	-0.150843	-0.111111	0.05	-0.04878	0.089744	0.011765
20 CROOKES	27.3	0.035714	-0.017544	0	0	0	0	0.027143	-0.035714	0	0	-0.214815	0
21 MASONITE	27.54	0.043478	0	0.041667	0.1	0.063636	-0.145299	-0.1	-0.088889	-0.012195	0.02963	0.447368	-0.181818
22 TRENCOR	27.84	-0.019231	0.058824	0.296296	0	-0.071429	0.007813	-0.007752	0	-0.015625	-0.031746	-0.019672	0
23 SABLE	28.15488	0	0	-0.142857	0.133333	-0.073529	-0.047619	-0.133333	-0.038462	-0.08	-0.195652	0.081081	0.0475
24 PUTCO	28.485	-0.038462	-0.072	0.206897	0.035714	-0.068966	0.148148	-0.041935	-0.103448	0	0.115385	0	-0.103448
25 POWTECH	29.98037	0.304348	-0.083333	-0.090909	-0.006667	-0.194631	-0.1	-0.12037	-0.052632	-0.022222	0	0.363636	-0.25
26 REX-TRUE	32.45	0.046025	0.08	0	0	0	-0.025926	-0.04943	-0.12	-0.204545	-0.028571	0.029412	0.006098
27 OCEANA	34.46145	0.733333	0	0.015385	0.060606	0.15	-0.005333	-0.463807	0.5	-0.333333	0.0625	0.070588	-0.047619
28 CHEMSERVE	34.63308	0.048387	0	0.061538	-0.015152	0.076923	-0.107143	-0.04	-0.116667	-0.117647	0.055556	0.157895	-0.018182
29 CULLINAN	44.15274	0.173469	-0.017391	0.00885	-0.005263	-0.099099	0.02	-0.078431	-0.085106	-0.104651	-0.051948	0.071429	0.066667
30 GROUP-5	49.245	0.35	-0.037037	0.051923	0.018519	0.018182	-0.035714	-0.166667	-0.011111	-0.08046	-0.25	0.033333	0
31 ELLERINE	51.75	0	-0.090909	0	-0.016667	0.046512	0	-0.122222	-0.025316	-0.045455	-0.160839	0	0.1
32 BOUMAT	55.34307	-0.047967	-0.052632	0.148148	-0.056452	0	0.025641	-0.074167	-0.074074	-0.02	-0.030612	-0.052632	-0.077778
33 CADSWEP	64.76856	0.186047	-0.019608	0.2708	-0.006494	0.062092	-0.030769	-0.142857	-0.018519	-0.045283	0.04	0.076923	0.017857
34 PEKOR	66.08	-0.011628	-0.052941	0.074534	0.023121	-0.028249	-0.05814	-0.228395	0.04	0.092308	0.077465	0.098039	0.011905
35 ADCOCK	68.0414	0.047619	0.090909	0.104167	0	0.075472	0.028734	0	0	-0.137931	0.08	0.009259	0
36 WESCO	70.40876	0.090909	0.166667	0.333333	-0.071429	0.056154	-0.037037	-0.076923	-0.25	0	0.027778	0.135135	0.047619
37 NUCLICKS	93.6	-0.157143	-0.067797	0.11	-0.024793	-0.050847	-0.053571	-0.075472	-0.040816	-0.086702	0.030806	0.264368	-0.018182
38 MALBAK	95.34813	0.16	0.043103	0.338843	-0.2125	-0.079365	-0.034483	-0.151786	-0.073684	0.068182	-0.042553	0.122222	0.009901
39 HLH	102.08483	0.12426	0	0.157895	-0.054545	-0.344231	0	-0.230769	0.18	-0.20339	0.276596	-0.01	-0.052632
40 NEI-AFR	102.4485	0.272727	0	0.259184	0	-0.116667	0	-0.018868	-0.153846	0.153636	0.04	0.038462	0.055556
41 REUNERT	113.3698	0.04	0	0.038462	0.111111	0.011333	-0.1	-0.092593	-0.061224	0.043478	0.025	0.033333	0.04
42 FOSCHINI	135.5284	-0.078014	0	0.392308	-0.01547	0.05814	0	0	-0.120879	0.0105	0.00625	0.024845	0.060606
43 DORBYL	137.00934	0.075	0	0.121622	0.024096	-0.027059	0	-0.049383	-0.051948	-0.075342	-0.007407	0.19403	-0.145
44 TOYOTA	144.05314	0.375	0.022727	0.022727	0.027273	0.076991	-0.008333	-0.004202	-0.025316	-0.333333	0.184211	0.088889	0
45 TIB	149.952	0.087719	-0.064516	0.190345	-0.044118	0.046154	0.014706	-0.028986	-0.014925	0.046909	0.073529	0.041096	-0.052632
46 METKOR	160.38956	-0.071429	0	0.076923	0.071429	0	0.02	-0.166667	0.08	-0.148148	-0.043478	0.5	-0.216667
47 ROMATEX	163.744	0.129032	0.014286	0	0.098592	-0.032051	0.013514	-0.08	-0.057971	-0.046154	-0.112903	0.063636	0.017857
48 PLATE-GL	165.64046	0.03125	0	0.136364	-0.026667	0.013699	-0.067568	-0.121739	-0.013793	-0.013986	0.028369	0.048276	0.075658
49 IPROP	166.2002	0	0.008333	0.053719	-0.011765	-0.02381	0.036585	-0.176471	0	-0.114286	0.236559	-0.087719	0
50 AMAPROP	173.02502	0.085366	-0.05618	0.02381	0.023256	0.084091	-0.010989	-0.177778	0.013514	-0.146667	0	0.15625	-0.081081
51 PIKWIK	186.25548	-0.133333	0.076923	0.160714	-0.0908	0	-0.068966	-0.1	-0.041152	0.008584	0.07183	0.2	-0.1
52 ALTRON	192.4713	0.054348	-0.032371	0.113043	0.015625	0.019231	0	-0.245283	-0.05	0.005263	0.034031	0.037975	0.102439
53 TEGKOR	193.6896	0	-0.017544	0.214	-0.029851	0.015385	0.015152	0	-0.014925	0.030242	0.060335	0	0.042254
54 DUNLOP	207.444	0.085106	0.032157	0.023622	-0.057692	0	-0.061224	-0.130435	0.104	-0.139535	0.108108	0.073171	-0.136364
55 PPC	225.7996	0.061224	0	0.076923	0.071429	0.089333	0.049383	-0.176471	0.042857	-0.109589	0.076923	0.084286	0
56 AFROX	228.27234	0.102941	0.053333	0.012658	0.00625	0.031056	0.081928	-0.318182	0.083333	0.038462	0.074074	0.042759	-0.047619
57 M&R-HLD	251.1299	0.078261	-0.008065	0.158537	0.101754	-0.016129	0.032787	-0.2	-0.079365	0.256034	-0.071429	0.076923	0.035714
58 ALTECH	333.044	0.071429	0.017333	0.016667	0.065574	-0.030769	-0.047619	-0.183333	-0.071429	0.120879	-0.029412	0.171717	-0.137931
59 HIVELD	346.82751	0.165049	-0.025	0.119658	-0.069767	-0.1	-0.046296	-0.135922	0.092135	-0.114583	0.070588	-0.054945	-0.093023
60 SAPPI	374.43375	0.145833	0.266182	0.08631	-0.123288	-0.09375	-0.034483	-0.160714	0.106383	-0.115385	-0.043478	0.145455	-0.083333
61 PICKNPAY	379.38474	-0.061404	0.028037	0.2	-0.104394	-0.051724	-0.018182	-0.111111	0.020833	0.020408	0.00375	0.2	-0.05
62 WOOLTRU	414.02223	0.034483	0.083333	0.169231	-0.013333	-0.010811	-0.016393	-0.166667	-0.083333	-0.049455	0.09765	0.071429	-0.016667
63 TIGBRANDS	458.49664	0.027778	0.013514	0.133333	0.011765	0.183721	-0.054726	-0.189474	0.071429	0.212121	0	0.03	0.012621
64 TONGAAT	514.2753	0.173786	-0.029412	0.021645	-0.008475	0.008547	-0.025424	-0.170435	-0.071038	-0.176471	0.048571	0.110354	-0.128834
65 NAMPAK	529.48973	0.028369	0.017241	0.084746	0.0125	-0.038889	-0.131148	-0.132075	-0.065217	-0.023256	0	0.179048	0
66 PREM-GRP	531.90776	-0.051546	-0.01087	-0.021978	0.011236	0.066667	-0.04	-0.1	-0.012346	-0.05	-0.039474	0.09589	-0.0875
67 REMBR-BEH	542.16	0.015152	0.026866	0.193663	-0.049383	-0.012987	-0.013158	-0.053333	0.078873	-0.005431	0.146667	0.046512	-0.044444
68 CGS-FOOD	615.632	0	0.066667	0.1125	-0.022472	-0.005747	-0.135294	-0.102041	-0.060606	0.024194	0	0.149606	-0.028169
69 CGSMITH	1086.228	0.010526	-0.020833	0.12766	-0.009434	-0.047619	-0.071429	-0.182418	0	-0.032258	0.038889	0.283422	-0.075269
70 AECI	1329.56	0.035714	-0.074713	0.125466	0.028571	0.044444	0	-0.111702	-0.02515	-0.056962	0.073826	-0.01875	-0.019108
71 SASOL	1522.5	0.034884	0.067416	0.084211	0.025243	-0.011364	-0.042146	-0.09	0.07033	0.039014	0.00616	0.15102	0
72 BARWORLD	1783.22	0.031496	0.080153	0.04947	-0.006734	-0.030508	-0.006294	-0.164286	0.021368	-0.09205	-0.032258	0.071429	-0.000889
73 SABPLC	1887.34182	-0.04698	0.06338	0.033113	-0.00641								

	84MC	1985JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES
1 ADONIS	1.6725	-0.1	0.119048	0.06383	0.14	0.052632	0.166667	-0.142857	-0.017241	-0.122807	0	0	0.2
2 YORKCOR	4.032	-0.055556	0	0	0	0	0.058824	-0.022222	0	-0.204545	0	0.328571	0.064516
3 CONFED	4.8433	0	0	0.031746	-0.003077	0	0	0	0.071429	-0.066667	0.031746	0	0.029641
4 NINIAN	5.3949	0	0	0	-0.285714	0	0.133333	0.088235	0	0	-0.108108	0	0
5 HARWILL	6.3405	-0.117647	0.266667	-0.052632	0.111111	0	0.35	-0.074074	0	0	0	0	0.2
6 COATES	7.072	0	0	0.179487	0	0.095238	0	0	-0.043478	0.022727	-0.022222	0	0
7 GUBINGS	7.18974	0	0.027778	0.013514	0.090667	0.0125	0	0.012346	0.073171	-0.022727	0.081395	0.032258	0.002179
8 EUREKA	7.904	-0.172414	0	-0.041667	0.156522	-0.038462	0.16	-0.103448	0.038462	-0.074074	0.236	-0.1	0
9 PERSBEL	8.35488	0	0	0	0	0.142857	0	0	-0.125	0.142857	0	0.125	-0.061111
10 OMNIA	14.929	-0.034483	0	-0.285714	0.4	0.392857	-0.076923	-0.444444	0.4	-0.142857	0.083333	0	-0.076923
11 ALEXNDR	17.82428	-0.193548	-0.032	0	0	0.130435	0.115385	-0.068966	-0.074074	0.16	0.096552	0	0
12 SABLE	18.04808	-0.3	0.107143	0.096774	0.058824	0.194444	0.186047	-0.137255	-0.090909	-0.125	0	-0.028571	0.029412
13 CEMENCO	19.8157	-0.096154	0.021277	0	0.166667	0	0.021429	0.178571	-0.242424	0.06	0.150943	0.163934	0.014085
14 AF-&OVER	20.875	-0.047619	0.1	-0.290909	-0.038462	0.093333	0.04878	0.395349	-0.166667	0	0.05	0.07619	0.16814
15 TOLARAM	21.2	0	0	-0.044444	0.162791	-0.06	0.021277	-0.083333	-0.136364	0.052632	0	0.05	0
16 GOLDSTEIN	23.7881	0	-0.05	-0.070175	-0.018868	-0.076923	-0.0625	-0.088889	0.02439	-0.095238	-0.171429	0.172414	-0.235294
17 SEARDEL	24.06976	-0.022222	-0.204545	-0.045714	0.166667	0.142857	0.011364	-0.123596	-0.102564	-0.014286	0.014493	0.051429	0
18 BATSA	25.8	-0.046512	-0.085366	-0.066667	0.142857	0.22	0.010638	0.105263	-0.114286	0.004301	0	-0.217391	-0.069444
19 MOBILE	27.3294	0	-0.092025	-0.02027	0	0.064138	0.118421	0	0	0	0.029412	0.026857	0.075581
20 MASONITE	29.3625	-0.111111	-0.075	0.027027	0.315789	0	-0.03	-0.020819	-0.021053	-0.010753	0	-0.076087	-0.023529
21 ELBGROUP	30.00906	0	0	0	0	0	0	0	0	0	0.005	0.428571	-0.048
22 CHEMSERVE	30.89814	-0.185185	0.136364	0.06	0.14	0.192982	0.058824	0.006944	0	0.06383	-0.093333	0.073529	0
23 CONCOR	31.49046	-0.26087	0.058824	0.055556	0.210526	-0.130435	0.05	0.190476	-0.2	-0.05	-0.031579	0.277778	-0.130435
24 PUTCO	38.052	0.038462	-0.05303	-0.08	0.017391	-0.059829	0.045455	-0.113043	0.029412	0.047619	-0.136364	0.105263	-0.095238
25 REX-TRUE	38.9695	-0.030303	-0.03125	-0.096774	0.035714	0	0.103448	0.1875	0	0.078947	0.02439	0.014286	0
26 CROOKES	41.91	0.023585	0	0.037736	0.090909	0	0	0.033333	0	0	0	0.041667	0
27 GROUP-5	43.2174	-0.064516	-0.206897	0.095652	0.304348	-0.166667	0.08	0.018519	-0.054545	-0.192308	0.095238	-0.043478	-0.068182
28 ELLERINE	45.54	0	-0.030303	-0.0625	0.058333	0.089431	0.044776	0.085714	-0.026316	-0.027027	-0.001389	-0.15493	0.016667
29 OCEANA	47.12815	0	0	0	0	0.0625	0.07	1.570093	-0.272727	-0.0875	0.123288	0.128049	0.113636
30 TRENCOR	48.75472	0	-0.2	0	0	0.108696	0.32	0	-0.075758	0.04918	0.09375	0.035714	0.028571
31 METAIR	49.852	0.045455	-0.108696	0.02439	0.047619	0.3	0.142857	-0.046875	-0.245902	0.065217	-0.020408	-0.041667	0
32 CULLINAN	54.2283	-0.05	-0.210526	0.233333	0.108108	0.193467	-0.010526	0.021277	-0.0625	0.111111	-0.004	-0.010417	0.052632
33 POWTECH	67.76385	0.022222	-0.01413	0.091954	0.052632	0.15	0.173913	-0.074074	0.04	-0.207692	-0.048544	-0.071429	0.120879
34 PEKOR	67.956	-0.017647	0.02994	0.046512	0.205556	0.129032	0.061224	0.25	-0.046154	0.064516	-0.136364	0.052632	0
35 CADSWEP	74.14275	-0.035088	-0.036364	0.093585	0.107143	0.112903	-0.014493	0.014706	0.014493	0.008571	-0.085714	-0.0625	0
36 BOUMAT	77.69672	-0.074699	-0.068493	-0.044118	0.230769	0	-0.0875	0.041096	-0.055263	0.147059	-0.038462	0.04	0
37 JOHNCOM	82.445	0	0	0	0	0	0	0	0	0	0.038251	-0.026316	0.013514
38 MALBAK	88.3064	-0.235294	0	-0.102564	0.314286	0.378261	0.015873	0.0625	0.029412	-0.014286	0.014493	-0.030714	-0.104478
39 WESCO	90.82562	-0.154545	0.086022	0.089109	0.145455	0.031746	0.058824	0.037037	-0.089286	0.019608	-0.115385	-0.086957	-0.02381
40 ADCOCK	92.75	0.022898	0.027523	0	0	0.011071	0	0	0	0.071429	0	-0.004667	0
41 I-&J	95.2	0	0	0	0	0	0	0	0	0	0	0.129032	0.057143
42 NUCCLICKS	114.4	-0.231481	0.048193	0.255172	0	0.148148	0.032258	0.046875	-0.089552	-0.019262	0.152542	0.102941	0.04
43 IPROP	117.70447	-0.076923	0.083333	0.346154	0.085714	0.008947	-0.026316	-0.081081	-0.029412	0.090909	-0.022222	0.064205	-0.068493
44 DORBYL	124.84368	-0.015385	-0.136364	0.035088	0.135593	0.047761	-0.057971	0.146154	-0.060403	-0.071429	0.071429	0.17429	0.024
45 METKOR	126.99648	-0.12	-0.090909	0.1	0.272727	-0.107143	0.04	-0.230769	0.1	0	-0.163636	0.358696	-0.096
46 HLH	127.21548	-0.12963	0	0	-0.076923	0.022083	-0.041667	0.130435	-0.019231	0.137255	-0.034483	0.171429	-0.076923
47 RELYANT	138.6917	0	0	0	0	0	0	0	0	0	-0.142857	0	-0.022222
48 NEI-AFR	144.9623	-0.096491	-0.097087	0.157849	0.192308	0.096774	0.014706	0.043478	-0.086667	-0.015385	0	0.03125	0.054555
49 ROMATEX	153.272	-0.035088	-0.181818	0.022222	0.25	-0.121739	0.12	0.017857	-0.122807	-0.06	0.042553	-0.010204	0
50 EDCON	166.82022	0	0	0	0	0	0	0	0	0	0	-0.017857	-0.052632
51 FOSCHINI	169.0613	-0.011429	0	0.017341	0.050795	0.064426	0.368421	-0.153846	0	-0.134182	0.059322	0	-0.024
52 AMAPROP	185.01106	-0.088235	-0.032258	0.133333	0.176471	0.19	0.088889	-0.020408	-0.083333	0.079545	-0.147368	0.123457	0.021978
53 DUNLOP	193.992	-0.052632	0.023333	-0.085714	0.2	0.020833	-0.030612	-0.052632	0.065556	-0.086022	0	0.082353	0.059783
54 TOYOTA	201.60119	-0.071429	-0.065934	0.011765	0.126928	0.178947	-0.017857	0.018182	-0.160714	-0.005348	-0.032258	-0.2	0.083333
55 AFROX	206.40373	-0.142857	0.016667	0.081967	0.090909	0.145833	0.064242	0.023256	-0.068182	-0.036585	-0.113924	0.602857	0.209091
56 TIB	217.14	0.152778	-0.060241	0.079538	0.108344	0.043478	0.03125	-0.010101	0.040816	0.169412	-0.033898	0.035088	0.033898
57 PPC	235.33536	-0.109589	-0.061538	0.106557	0.103704	0.092617	0.0375	0.03012	-0.122807	0.08	-0.028395	0.091487	-0.036145
58 HIVED	253.68168	0.064103	-0.048193	0.027848	0	0.177215	0.043011	-0.030928	0.165957	-0.018519	0.075472	0.008772	0.043478
59 TEGKOR	265.08	0.013514	0	0.148427	0.023529	0.103448	0.020833	0	0	0.134776	-0.018182	0.055556	-0.017544
60 PIKWIK	267.04842	-0.092593	0.061224	0.096154	0.110105	0.16129	0.027778	0.040541	0.025974	0.113924	-0.108818	0.102564	-0.023256
61 PLATE-GL	293.52582	-0.21875	0.08	0.037037	0.214286	-0.029412	0.272727	0.045238	-0.035294	0.073171	-0.011364	0.091954	0.025263
62 ALTRON	332.39934	-0.115044	0	0.1	0.25	0.076	0.086207	-0.047619	0	-0.133333	-0.192308	0.119048	0
63 SAPPI	364.4082	-0.134199	0.061	0.125	-0.111111	0	-0.1	-0.094444	0.01227	-0.16875	-0.12782	0.155172	-0.074627
64 REUNERT	368.16	0	-0.076923	-0.083333	0.045455	-0.026087	0.261261	-0.196429	-0.044444	0.023256	-0.127273	0.069792	-0.068627
65 M&R-HLD	402.58688	-0.141379	-0.100402	0.004484	0.186667	0.007605	0.018868	-0.111111	-0.083333	0.045455	-0.009009	0.154545	0.023622
66 NAMPAY	442.766	-0.145833	0.04878	0.162791	0.088	0.144853	0.032787	0	-0.104762	0	-0.042553	0.065185	0
67 PICKNPAY	513.41184	-0.157895	0.0625	0.137255	0.168793	0.142857	0.065789	-0.024691	0.044304	0.084848	-0.023128	0.097701	-0.041885
68 CGS-FOOD	545	-0.101449	0	0.112903	0.072464	0.216216	-0.082222	0.037037	-0.065476	0.031847	0.018519	0.207273	-0.025641
69 ALTECH	560.85568	-0.07	0.032258	0.125	0.111111	0.0375	0	-0.016393	0.033333	-0.112903	-0.054545	0.173077	-0.07377
70 WOOLTRU	586.40946	-0.101695	-0.018868	0.019231	0.146154	0.090604	0.015385	-0.030303	-0.0375	-0.008442	-0.183333	0.171429	-0.12892
71 TIGBRANDS	686.19053	-0.063725	0.026178	0.091837	0.074766	0.113043	0.017969	-0.015564	-0.003953	0.031746	-0.015385	0.140625	0.032877
72 GENBEL	701.36784	-0.02381	0.029268	0.097156	0.066667	0.083333	-0.026923	-0.039526	0.049383	0.080392	0.086792	0.121528	0.021672
73 REMBR-BEH	703.8	-0.011628	0.105882	0.088298	0.049505	0.113208	0.067797	-0.095238	0.087719	0.075613	0.015152	0.044776	0.114286
74 CGSMITH	851.292	-0.116279	0.007895	0.096606	0.119048	0.170213	0.018519	-0.018182	-0.157407	0.054945	-0.091667	0.158257	0.061224
75 TONGAAT	855.94245	-0.107042	-0.072581	0.06087	0.163934	-0.021127	0.05036						

	85MC	1986JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 NICTUS	0.8906	0.166667	0	-0.05714	0	0	0	0.090909	-0.02778	0.285714	0.211111	-0.03846	0
2 ADONIS	1.8063	0.083333	0.046154	-0.16176	0.140351	-0.07692	0.083333	-0.07692	-0.03448	0.071429	0.116667	0.119403	0.133333
3 INDFIN	2.2								0.05	0.142857	-0.10417	-0.09302	-0.02564
4 PACIFIC	3.654								0.066667	0.05	0.111111	0	0
5 NINIAN	4.23885	0	0.030303	0.176471	0.025	-0.02439	-0.05	0	0	0.105263	0.309524	0.2	0.212121
6 YORKCOR	4.33664	0.191919	0.042373	-0.025	0	0.025641	0	-0.05	0	0	0	-0.12281	0.2
7 CONFED	5.5902	0.060606	0	0	0	0	0	0	0	0	0.051775	-0.01571	0
8 LENCO	5.6485								0	-0.05556	-0.05882	0.125	-0.05556
9 PERSBEL	6.1888	0.125	0	0	0	-0.11111	0	-0.125	0	0.142857	0.125	0.05	0
10 EUREKA	7.436	0.407407	0.473684	0.039286	0.907216	-0.08925	0.082	-0.13863	0.090129	0.637795	0.180288	0.271894	0.013611
11 COATES	7.48	0.068182	0.489362	0.134286	0	0	-0.06667	-0.07143	-0.38462	0.5	0	0.166667	0.028571
12 COROHL	8.22								-0.32308	0.363636	0.305085	0.168831	0.211111
13 GUBINGS	8.22555	0.304348	0.05	0	0.01746	0.055556	0.052632	0	-0.02143	-0.0292	0.015038	-0.0237	0.023622
14 FINTECH	10.25	0.071429	0.013333	0.315789	0.04	-0.06731	0.129032	-0.04762	0.04	0.576923	0.158537	0.126316	0.093458
15 AF-&OVER	10.775	0.012545	0.061947	0	-0.01667	0.016949	0	-0.1	-0.12037	0.210526	0.043478	0.084167	-0.04
16 UNIHOLD	11.968								0.034483	-0.11667	0	-0.0566	0
17 ALEXNDR	12.60864	-0.04	0.125	0.077778	-0.08772	0	0.25	0.061538	0.043478	0.083333	0.005128	0.171053	-0.04494
18 HARWILL	13.23948	0	-0.06667	-0.10714	0.2	0	-0.16667	-0.16	0	0	-0.2381	-0.0625	0
19 GOLDSTEIN	13.993	-0.19231	-0.04762	0.2	0	0.25	0	-0.13333	0	-0.07692	-0.125	0.047619	-0.13636
20 OZZ	14.74				-0.0625	-0.22222	0.057143	0.027027	0.052632	0.175	-0.12766	0.243902	0.323529
21 CEMENCO	17.49248	0.093294	0.12	0.285714	-0.09259	-0.14286	0.019048	0.02381	0.139535	-0.05102	-0.09677	0.021571	-0.0642
22 SEARDEL	18.89392	0	0.25	-0.05778	0	0.115385	0	0.137931	0	0.090909	0.138889	0.035195	0.292683
23 OMNIA	19.05904	0.183333	0.056338	-0.03333	-0.17241	0.166667	-0.14286	0	0.125	0.070588	0.227273	0.018519	0
24 TOLARAM	19.2	0.238095	0.153846	-0.11667	0.509434	0	0.125	-0.11111	0.0625	0.070588	0.227273	0.018519	0
25 BATSA	20.169	0.19403	0.15	-0.04348	-0.15909	0.116216	0	-0.0125	0.316456	0.051923	-0.05607	0.138614	-0.09565
26 CONCOR	21.40528	-0.05	-0.12632	0.084337	-0.27778	-0.07692	0.083333	-0.07692	-0.16667	0.1	0.054545	0.327506	-0.11688
27 MOBILE	23.78565	0.091892	0.014851	0.365854	0	0.142857	0.015625	0.015385	0.060606	0.083429	-0.02703	0.027778	0
28 GROUP-5	27.5628	0.121951	-0.02174	-0.17778	-0.13514	0.0625	-0.14706	-0.04828	-0.26087	0.397059	-0.17895	0.128205	0.193182
29 MASONITE	28.1475	0.183133	0.043478	0	-0.01042	-0.11579	-0.02381	0	-0.08537	0.36	0.005882	0.25	0.008
30 PUTCO	30.38875	0	-0.05263	-0.05556	-0.04706	0.049383	0.023529	-0.02299	-0.05882	-0.05	0.052632	-0.0625	0.066667
31 REX-TRUE	31.5532	-0.06103	-0.125	0.034286	0.038674	0	0	-0.0266	-0.04372	0.074286	0.079787	0.004926	0.036289
32 CROOKES	31.86	0.0008	0.020408	0.12	0.035714	-0.04	0.259259	0.014706	0.028986	0	-0.04225	0.029412	0
33 HUDACO	38.606	0.295455	0.052632	0.05	-0.01587	0.080645	0.158209	-0.02632	-0.04054	0.183099	-0.0119	0.144578	0.021053
34 BOUMAT	40.35305	-0.08847	0.176471	0.0625	-0.04706	-0.1358	0.048571	0.171429	0.097561	0	-0.08889	0.04878	0.023256
35 ELLERINE	41.4	0.147541	0.357143	0.031579	0.108163	0.095238	-0.06087	0.111111	0.208333	0.172414	-0.04765	0	-0.03125
36 ELBGROUP	43.64906	0.05042	-0.12	0.059091	-0.02403	-0.11111	0	0.15	-0.06522	0.27907	-0.15491	0.044444	0
37 TRENCOR	45.955	0	0	0.25	-0.02222	0.036364	0.088889	0.081633	0.037736	0.227273	0.014815	-0.01493	-0.00758
38 CHEMSERVE	46.68675	0.164384	0.447059	-0.04167	-0.03478	0.022523	0.013216	0.130435	0.173077	0.033333	-0.03226	0.083333	0.030769
39 CULLINAN	50.1396	0.127049	0.136364	0.12	-0.21429	0.090909	-0.05	0.008772	0.043478	0.166667	-0.06714	-0.11111	0.071429
40 METAIR	52.118	0.173913	0.148148	-0.03226	-0.03333	0.02069	0	0.017241	-0.05085	0	-0.16071	-0.06383	-0.18182
41 OCEANA	65.26363	0.020408	-0.08	0.086957	-0.09	0.153846	0.007143	0.165049	-0.08333	0	-0.13636	0.139474	-0.07767
42 PEPCOR	71.4	0.033333	0.129032	0	-0.08571	-0.15625	-0.22222	0.238095	-0.01538	0.039063	0.240602	0.060606	0.142857
43 JOHNNOM	74.5114	0.027027	0.026316	0.051282	0.014634	0.057692	0.034091	0.022727	0.022222	0.086957	0.34	0.044776	0.085714
44 RELYANT	75.78468	0.051136	0.135135	0.047619	0	-0.10455	-0.18782	0.125	0.277778	0.217391	-0.07143	-0.03846	-0.14
45 CADSWEP	79.34575	-0.02	0.020408	0.166	0	0.041176	0	-0.0113	0	-0.02	0.176471	0	0.1
46 WESCO	86.20452	-0.02439	0.1	0.181818	0	-0.03462	-0.06452	-0.00862	-0.02174	0.333333	0.066667	-0.25	0
47 POWTECH	90.7856	-0.11765	-0.02222	0	-0.125	0.112987	-0.08537	0.026667	-0.05195	-0.0411	0.114286	-0.02564	0.052632
48 MALBAC	109.1944	0.425	0.017544	0.172414	-0.01471	0.044776	-0.04348	0.136364	0.12	0.202381	0.188119	0.25	-0.02703
49 ADCOCK	109.99323	0	0.008547	0.008475	-0.0084	0.011525	0.010695	0	0	0.230769	0.125	0.038778	0.021739
50 ROMATEX	113.05	0.052632	0.15	0.043478	-0.08333	0.010909	-0.13636	0.010526	0.041667	0.2	0.066667	0.125	-0.10714
51 METKOR	120.48384	-0.04545	0.019048	-0.09346	-0.12371	0.235294	-0.04762	0.05	-0.04762	0	-0.05	0.315789	-0.068
52 NUCLICKS	124.4	-0.02564	0.065789	0.049383	-0.00429	0.059524	-0.14607	0.052632	0.0375	0.107831	-0.08791	0.012048	0.047619
53 HLH	127.64255	0.266667	-0.05263	0.083333	-0.17949	0.125	0.155556	-0.02439	0.275	-0.15686	-0.02326	0.09881	-0.07692
54 AMAPROP	143.37284	0.16129	0.018519	-0.00909	-0.10092	0.059184	-0.22449	0.026316	0.282051	-0.09	-0.01099	-0.06667	0.071429
55 I-&J	145.6	0.040541	0.142857	-0.05682	-0.06024	0.064103	0.024096	0.023529	-0.09195	0.032911	-0.01266	-0.03846	0.093333
56 TOYOTA	158.28764	0.025641	0.25	-0.01	-0.06061	-0.15054	-0.18987	0.015625	0.323077	-0.06279	-0.00744	-0.05	0
57 DUNLOP	169.92	0.153846	0.129778	0.142857	-0.03571	0	-0.05556	0.019608	0.007692	-0.06183	-0.20833	-0.10526	0
58 EDCON	170.82576	0.044444	0.06383	0.05	0.019048	0.021028	0.037736	0.045455	0.26087	0.085517	0.143583	0.150833	-0.01073
59 FOSCHINI	189.9551	0	0.02459	0.048	-0.03034	0.04065	-0.04688	-0.03279	0.084746	0.125	0.049262	0.04	0
60 NEI-AFR	191.75013	0.101449	0.105263	0.049286	0	0.011628	0.011494	0	-0.01136	-0.14133	0.054054	-0.0641	0
61 VENTRON	197.73	0.107143	0.032258	0.067708	-0.04878	0.021026	-0.07216	0.016667	0.256831	0.043478	-0.08333	0	-0.02273
62 SAPPI	199.554	0.298387	0.15528	-0.01075	0.086957	0.14	0.184211	0.018519	0.054545	0.068966	-0.13548	0.044776	0.428571
63 IPROP	211.09906	0.041176	-0.0113	0.057143	-0.10811	-0.06545	0.032787	-0.12698	0.254545	0.15942	-0.075	-0.02811	0.242857
64 DORBYL	212.0566	0.013514	0.08	-0.03086	-0.10828	0.157143	-0.08272	0.013899	0.351351	-0.075	0.016216	0.170213	0.015455
65 PLATE-GL	221.06816	0.010417	0.175258	-0.0614	0.046729	-0.03571	0.037037	0.060714	-0.00862	0.052174	-0.04132	0.034483	-0.07767
66 AFROX	237.55901	-0.07519	0.04065	-0.02344	-0.016	0.130081	-0.07986	0.111111	0.107143	-0.09677	0.057143	0.05473	0.078431
67 PIKWIK	247.92948	0.095238	0.043478	0.03125	-0.25253	0.045865	-0.1	0.008772	0.115942	0.038961	-0.125	-0.07894	-0.0625
68 TIB	270.204	0.057377	-0.03876	0.092516	0.029851	0.144928	0.139241	0.094444	0.076142	-0.04947	0.06	0.018868	0.018519
69 PPC	286.0728	0.09375	0.428571	-0.12	-0.12727	0.040625	-0.06599	0.032609	0.052632	0	0.08	0.141667	0.145833
70 TEGKOR	340.134	0.142857	-0.03125	0.091839	0.029851	0.101449	0.131579	0.127907	0.051546	-0.05182	0.020833	0	0
71 M&R-HLD	343.9798	0.038462	0.092593	-0.22034	-0.14783	-0.24742	-0.02055	-0.00699	0	-0.0493	0.051852	-0.01408	-0.00714
72 REUNERT	347.7488	-0.21053	0.08	0.030864	-0.2515	-0.064	-0.19658	0.117021	0.380952	0.103448	0	0	0.0625
73 ALTRON	367.16436	0.06383	0	0.04	0.009615	0.016	-0.03846	0	0.22	0.016393	0.016129	-0.01587	0.032258
74 FIT	397.81994				-0.04545	0.028571	0.018519	0.060886	0.121739	0.046512	0.014815	0.036496	-0.00915
75 HIVELO	420.29015	-0.00833	-0.15966	0.252	0.02459	0.072	0.037313	-0.05036	0.045455	-0.13768	-0.11966	0.048544	0.092593
76 TONGAAT	427.07082	0.078912	-0.03165	0.098039	-0.10714	0	-0.02	-0.00816	0.027778	0.013514	-0.06	0.106383	-0.01923
77 PICKNPAY	462.54024	0.021858	0.053476	0.025381									

	86MC	1987JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 CAPSTAR	0.92796						0.133333	-0.117647	0.333333	-0.1	-0.305556	-0.04	0
2 NICTUS	1.46949	0.1	0.363636	0.466667	0.090909	-0.15	-0.1	-0.111111	0.025	0.036585	-0.152941	-0.214286	0
3 ADONIS	1.90665	0.117647	0.333333	-0.083333	0.181818	0	0.076923	0.035714	-0.035714	-0.037037	-0.230769	-0.05	0.105263
4 INDFIN	2	0.289474	-0.061224	0.086957	-0.1	0.111111	-0.06	0.021277	-0.104167	0.860465	-0.125	-0.357143	0
5 SAIL	2.16	0.2	0.166667	-0.085714	0.09375	0.428571	-0.1	-0.111111	0.25	0.1	-0.272727	-0.25	0.166667
6 VESTCOR	2.6979				0.139394	0	0.095745	0.15534	0.105042	0.190114	-0.121406	0.011636	-0.043636
7 VOLTEX	3.8855						-0.104217	-0.054054	-0.171429	-0.103448	-0.115385	-0.086957	-0.011905
8 PACIFIC	3.80712	0.285714	0.111111	-0.132653	0.058824	0.388889	0	0.256	-0.013333	0.081081	0	0	0
9 DON	4.715						0.083333	0	0.046154	0.014925	-0.264706	0	0
10 YORKCOR	5.34912	0.041667	0	0.008	0.031746	0	0	0	0.076923	0	0	0	0
11 CONFED	5.5055	0	0	0	0	0.129518	0	0	0	0.333333	-0.038	-0.052632	0
12 BEARMAN	5.82581						-0.094444	0.125	-0.111111	0	-0.25	-0.333333	0.25
13 PERSBEL	5.87936	0	0.555556	-0.071429	-0.076923	0.083333	0.307692	0.235294	-0.047619	0	-0.15	-0.198529	0
14 NINIAN	9.3548	0.15	0.130435	0.346154	0.068702	0.107143	-0.096774	0.142857	0.03125	0	-0.012346	-0.3	-0.017857
15 LENCO	9.9435	0.764706	-0.033333	-0.103448	0.076923	-0.071429	0	0.230769	0.40625	0	-0.333333	-0.166667	0.05
16 RENTSUR	11.27375				-0.057143	0.037879	0.117647	0.105263	0.47619	-0.016129	-0.257377	0.022222	-0.086957
17 OXBRIDGE	11.44975						0.241935	-0.061039	0.138889	0.036585	0	-0.411765	-0.014
18 UNIHOLD	11.48928	0.3	0	0.184615	0.103896	0	0.058824	0.166667	0.047619	0.154545	-0.32	-0.058824	-0.0625
19 HARWILL	11.53116	-0.22	-0.188034	0.631579	0.193548	-0.135135	0.125	-0.111111	-0.0625	-0.066667	-0.142857	0.25	0
20 CONCOR	11.93756	-0.073529	0.111111	0.357143	-0.105263	0.058824	-0.055556	-0.058824	0.125	0.388889	-0.2	-0.2	0.0375
21 COATES	12.24	0.25	-0.166667	0.08	0	0.184211	0	0.111111	0.16	0.031034	-0.237288	-0.111111	0
22 OZZ	12.596	-0.029851	0.461538	0.315789	-0.08	-0.086957	0.190476	0.04	-0.115385	0.26087	-0.268966	-0.047619	-0.15
23 SILTEK	13.23679						0.306667	0.30102	0.019608	-0.115385	-0.330435	-0.025974	-0.2
24 SABLE	14.00256	-0.058824	0.03125	0.454545	0.083333	0.038462	-0.115385	0.086957	0.2	0.166667	0	0	-0.428571
25 GUBINGS	14.217	0.038462	0	0.037037	0	0.372263	0.06383	0.1	0	0.181818	0.269231	-0.245455	-0.041667
26 AF-&OVER	15	0.25	0.2	0.111111	0.075	-0.069767	0.1	0.090909	-0.04	-0.045119	-0.090909	0	0
27 FINTECH	15.58	0.367521	0.15625	1.162162	0	-0.07	0.162162	0.395349	0.066667	0.3125	-0.5	-0.261905	-0.016129
28 COROHL	17.28	0.009174	-0.081818	0.188119	-0.191667	0.395349	-0.25	0.066667	0.041667	0.02	-0.490196	-0.423077	0.466667
29 BIDVEST	17.29002						0.142857	0.029167	-0.083333	0	-0.159091	0.055556	-0.105263
30 SEARDEL	19.86176	0.018868	0.5	0.175926	-0.053191	0.191011	-0.056604	0.28	0.101563	0.191489	-0.369048	-0.130275	0.033333
31 GROUP-5	20.8728	-0.028571	0.088627	0.623853	0.135593	0.099502	-0.076923	0.333333	0.123775	0.046823	-0.140575	-0.063197	-0.027778
32 WINBEL	21.6154						0.058042	-0.1	-0.037037	0.038462	-0.444444	-0.133333	0.04
33 PUTCO	22.46125	0.8125	0.172414	0.617647	0.2	0.098485	0	0.043478	-0.055556	-0.058824	-0.34375	-0.047619	0.1875
34 OMNIA	23.99995						0.1875	0.421053	0.111111	0.2	-0.388889	-0.181818	0.055556
35 HCI	25.65108				0.071429	0.2	0.052778	-0.054054	0.214286	0.176471	-0.2	-0.075	-0.002703
36 TEMPORA	25.76	0.058824	0.044444	0.06383	0.02	0.039216	-0.018868	0.057692	0.163636	0.04	-0.230769	0	-0.1
37 ALEXNDR	28.56048	0.270588	-0.092593	-0.006122	0.145833	0.018182	-0.071429	0.153846	0.083333	0.076923	-0.193571	-0.227273	0
38 REX-TRUE	30.975	0.065	0.352113	0.041667	0	0.083333	0.076923	0	-0.017143	0	0	-0.162791	-0.181818
39 BATSA	32.4405	0.096154	0.438596	0.402439	0.065217	-0.041633	0.048035	0.016667	0.47541	-0.041667	-0.176471	-0.391429	0.056338
40 TOLARAM	32.8	-0.045455	-0.047619	0.55	0.235484	-0.052632	0.111111	-0.175	0.030303	-0.029412	-0.078788	-0.4	0.111111
41 CEMENCO	32.86673	0.041096	0.052632	-0.0375	0.428571	-0.063636	0	0.015779	0.019417	0.180952	-0.112903	0	0
42 INMINS	36.45376	0.040816	-0.058824	0	0	-0.041667	0.143478	-0.038462	0	-0.08	-0.326087	-0.354839	0.36
43 CASHBIL	39.4	-0.052632	0.138889	0	-0.170732	0.117647	-0.026316	-0.027027	-0.027083	-0.086957	-0.095238	-0.175439	-0.148936
44 CFC	40.672												0.533333
45 CROOKES	42	0.045714	0.027778	0.108108	0.170732	0	0.041667	0.0988	0	-0.185185	0	-0.205455	0.000572
46 MASONITE	42.93	0.312698	0	0	-0.03125	0.129032	0.028571	0.111111	0.045	0.025	-0.146341	-0.257143	0.038462
47 MOBILE	44.8088	0.027027	0	0	0.325632	0.44	-0.055556	0.014706	0.043478	0.166667	-0.198333	-0.272727	0.125
48 ELBGROUP	52.17912	0.170213	0.018182	0.321429	-0.045405	0	0.057143	0.027027	0	-0.013158	-0.177067	-0.3	0.071429
49 DALYS	52.22	0	0.071259	0.190133	0.11257	-0.08769	0.016636	0.078182	0.035413	0.203583	0.117388	0	-0.337821
50 BRAIT	54.28548					-0.066667	0	0.035714	0	0	0	-0.310345	0
51 DELTA	55.59435						0.030702	0.123404	0.185606	-0.032258	-0.333333	-0.145	0.169591
52 METAIR	55.80025	0.166667	0.190476	0.016	-0.035433	0.251429	-0.166667	0.16	0.189655	0.043478	-0.166667	-0.4	0.055556
53 BOUMAT	63.6704	0.079545	0.105263	0.009524	0.207547	0.03125	-0.016667	0.055118	-0.014925	0.060606	-0.142857	-0.208333	-0.010526
54 JDGROUP	66.0768	-0.05	-0.063158	0.056818	0.053763	-0.081633	0.022222	0.032609	-0.031579	0.021978	0.301075	-0.153846	0
55 GRINDROD	67.65392				0.032895	0.22293	-0.130208	-0.011976	0.090909	-0.151389	-0.166667	-0.16	0.114286
56 TRENCOR	70.03314	0.007634	0.030303	0.102941	0.144	0.382353	-0.021277	0	0.086957	0.144	-0.215385	-0.2	0.136364
57 CULLINAN	74.31584	0.083333	0.115385	-0.055172	0.00292	0.148148	0.129032	0.085714	-0.026316	0.121081	-0.158416	-0.323529	0.008696
58 CTP	76.44224					-0.142857	-0.02	0.006803	0.148649	-0.029412	-0.030303	-0.375	
59 JOHNCOM	77.3539	0.013333	0.013158	0.038961	-0.0125	0.010127	0.009398	0.156812	0.251111	0.110124	-0.2	-0.25	0.023333
60 CGU	84				-0.018182	-0.00463	0.023256	0.045455	0.102609	0.12	0.017857	-0.017544	0.357143
61 HUDAC	85.554	0.28866	0.12	0.16	0.05625	0.005917	-0.041176	-0.030675	-0.038462	0.04	-0.358974	-0.16	0.071429
62 SANTAM	86.8	-0.08462	-0.08	0.130435	0.115385	0.241379	0.2	0.090476	0.045455	-0.043478	-0.113636	-0.128205	-0.088235
63 FASIC	92.40641											-0.157895	-0.296875
64 OCEANA	94.76388	0.052632	0.05	-0.047619	0.1	0.045455	-0.019565	0.118182	0.162602	0.048951	0.053333	-0.033228	-0.013793
65 RELYANT	96.82304	0.093023	0.106383	-0.038462	0.16	-0.068966	0.074074	0.172414	0.029412	0.114286	-0.25641	-0.275862	0.071429
66 M-&F	98.6265	0.044776	0.028571	0.166667	-0.008333	0.018182	0.071429	0.444444	0.092308	0.058169	-0.333333	-0.15	-0.058824
67 CHEMSERVE	99.09735	0.014925	0.169118	0.051282	0.04878	0.116279	0.083333	0.069615	0.054545	-0.086207	-0.245283	-0.3	0.035714
68 WESCO	101.41214	0	0.125	0.203704	-0.027692	0	0.022152	0.5625	0.28	-0.007813	0.251969	0	0
69 POWTECH	108.48565	0.3125	0.321905	0.37037	0.043243	0.139896	0.045455	0.217391	0.035714	0.310345	-0.315789	-0.269231	-0.184211
70 ELLERINE	110.124	-0.064516	0.103448	-0.125	0.17	0.15625	-0.054054	0.057143	0.081081	-0.025	-0.143077	-0.30303	-0.130435
71 METKOR	111.80032	0.409091	0.354839	0.02381	-0.023256	0.071429	-0.035556	0.069767	0.086957	-0.14	-0.069767	-0.175	0.048485
72 GARDIAN	114.8	0.043478	0	0	-0.008621	0.017391	0.111111	0.192308	0.109677	0.04593	0.016949	0	-0.25
73 SA-EAGLE	116.19636	-0.020833	0.085106	0.043137	0	0.386139	0.017857	0.052632	0.2	0.018889	-0.333333	-0.125	0.02381
74 FRAME	116.70696						-0.106383	0.254286	0.134615	-0.118644	-0.294615	-0.127778	-0.10828
75 NEIHOLD	121.29645						0.02716	0.105769	0.01087	-0.032258	0.011111	-0.329545	0
76 ROMATEX	127.806	0.136	0.126761	0.0625	0.117647	0.121053	-0.047619	0.05	0.190476	0.02	-0.137255	-0.195455	0
77 CADSWEP	135.5211	-0.090909	-0.075	0.32973	0	0.041667	0.12	0.071429	0	0.05	0.015873	-0.453125	0.028571
78 PEKOR	138.432	0.05	-0.047619	0.05	0	-0.080952	0.088083	0.285714	0.222222	0.030303	-0.264706	-0.22	0.538462
79 METLIFE	148.56645	-0.085714	0.09375	-0.028571	0.117647	0.177632	-0.068182						

93 FURNCAP	252.168							0.052632	0.14	0.155556	-0.067308	-0.286598	-0.147059	-0.034483
94 REUNERT	261.12209	0.441176	0.020408	0.08	0.074074	0.110345	-0.03125	0.145161	0.126761	0.875	-0.44	-0.259524	0.278689	
95 MALBAK	262.2456	0.020833	0.040816	0.084967	-0.027711	-0.03125	0.129032	0.062857	0.102151	-0.043902	-0.234694	-0.256	0.376147	
96 DORBYL	307.7192	0.348837	0.013793	-0.064626	0.018182	0.142857	0.01	0.046875	-0.029851	-0.030769	-0.238095	-0.083333	-0.049091	
97 A-V-I	350.4613				0.064639	0.178571	-0.030303	0.046875	0.014925	0.176471	-0.13125	-0.117647	-0.016667	
98 PPC	360.55968	0.054545	0	0.017241	0.033898	0.092459	0	0.030303	0.029412	0.028571	0.055556	-0.345263	0.041667	
99 SISA	383.7714	0.060606	0.171429	0.000488	0.0375	0.26506	0.085714	0.052632	-0.020417	0.173913	-0.185185	-0.263636	0.358025	
100 HIVELD	416.56272	-0.110169	0.028571	0.222222	0.039063	0.022556	0	0.044118	0.084507	-0.077922	-0.242857	-0.103774	-0.031579	
101 WOOLTRU	417.14192	0.054422	-0.048387	0.035254	0.2	0.013889	-0.013699	-0.027778	0.085714	-0.024737	-0.175824	-0.066667	-0.05	
102 TIB	427.152	0.163636	-0.046875	0.245607	0.125828	0	0	0.082353	0.01087	0.048387	-0.230769	-0.216	-0.05102	
103 AFROX	439.76876	0.181818	-0.071795	0.022099	0.054054	0.051282	0.050732	0.056338	-0.022222	0.081818	-0.222689	-0.115135	-0.16875	
104 ALTRON	442.67282	0.125	-0.027778	0.257143	0.375	0.054711	0	0.142857	0.0625	0.137255	-0.367816	-0.272727	0.0875	
105 PLATE-GL	463.6868	0.12844	-0.02439	0.141667	-0.007299	0.022059	0.093525	0.099474	0.08589	-0.016949	-0.264368	-0.0625	0.116667	
106 PIKWIK	477.9735	0.016667	0.147541	0.057143	0.130541	0.061463	-0.036765	0.099237	0.020833	-0.068027	-0.248175	-0.098604	0.032609	
107 SAPPI	484.992	-0.05	0.289474	0.179592	-0.096491	0.087379	0	0.098214	0.021138	0	-0.290323	-0.170455	0	
108 TEGKOR	504.806	0.22449	0.083333	0.083908	0.071429	0.133333	0	0.029412	-0.028571	0.034682	-0.002286	-0.371134	0	
109 FIT	547.59677	0.057971	0.034247	0.05298	0.069182	0.082353	-0.01087	0.077778	0.082474	0	-0.047619	-0.3	0.057143	
110 TONGAAT	573.0036	0.215686	0.119565	0.106796	0.008772	0	0.078261	0.168548	0.105263	-0.047619	-0.26	-0.099099	0	
111 ALTECH	593.34544	0.086957	-0.03	0.134021	0.227273	0.051111	0.071429	0.166667	0	-0.011429	-0.306358	-0.166667	-0.05	
112 NEDCOR	838.04	-0.02454	-0.050314	0.013245	-0.104575	-0.144526	0.008696	-0.025862	-0.026549	0	0.1	0.052893	-0.065041	
113 SAFREN	842.268	0.120482	0.053763	0.127551	0.137104	0.058452	0.038168	0.033088	0.170819	-0.009119	-0.096012	-0.292683	-0.019704	
114 KERSAF	845.6173	0.257225	-0.011494	0.103256	-0.276596	-0.308824	0.042553	0.061224	-0.053846	0.125	-0.02963	0.015267	0.033835	
115 NAMPAK	867.8362	0.04878	0.116279	0.25	0.016667	-0.003279	-0.05	0.052632	-0.05	-0.052632	-0.185185	-0.063636	0.09	
116 PICKNPAY	900.42732	-0.057554	0.091603	0.090909	0.124103	0.087209	-0.02139	0.092896	-0.025	-0.046154	-0.306452	-0.030233	0.040323	
117 CGS-FOOD	1064.647	0.2	-0.041667	0.130435	0.25	-0.046154	-0.083871	0.196429	-0.014925	0.045455	-0.217391	-0.148148	0.135652	
118 GENBEL	1118.7869	-0.017241	-0.003509	0.077465	0.033333	-0.019355	-0.046053	0.065517	0.116505	0.052174	-0.225352	-0.127273	0.114583	
119 PREM-GRP	1176.79475	-0.066667	0.214286	0	0.058824	0.111111	-0.08275	0.166667	0.095238	0	-0.130435	-0.1	-0.041667	
120 TIGBRANDS	1247.12881	0.086957	0	0.07	0.074766	-0.026087	0.028929	0.184211	0.037037	-0.096429	-0.209486	0.1	-0.071545	
121 REMBR-BEH	1351.44	0.20339	0.056338	0.073573	0.05	0.011905	0.1	0.144385	-0.018692	0.033438	-0.259259	-0.14375	0.014599	
122 CGSMITH	1364.22	0.048387	0.132308	0.005435	0.067568	0.063291	0.074405	0.011236	0.055556	0.021053	-0.226804	-0.08	0.023333	
123 AECI	2219.6	0.137931	0.015152	0.065672	0.085714	-0.052632	-0.013889	-0.056338	-0.029851	0.0625	-0.205882	-0.240741	0.073171	
124 SABPLC	2614.383	0.016518	0.11875	-0.005587	0.137079	-0.067441	0.027027	0.263158	0.030833	0.060631	-0.275915	-0.136842	0	
125 JOHNNIC	2641.356	0.086519	-0.027778	0.048077	0.073394	0.025641	0.041667	0.28	0.1	-0.034091	-0.285714	-0.25	-0.1	
126 VENFIN	2671.074									0.091886	-0.315682	-0.074405	-0.064309	
127 SASOL	4033.125	0.063158	0.089109	-0.011364	0.032864	0.068182	0.021277	0.191667	-0.031469	0.01083	-0.265455	-0.168317	-0.065476	
128 BARWORLD	5001.198	0.013333	0.015182	0.121635	0.122667	0	-0.022169	0.055738	0.09705	0	-0.230007	-0.011949	-0.037209	
MARKET FACTOR	1987	0.098931	0.075147	0.123537	0.062347	0.070153	0.021457	0.094997	0.063809	0.050046	-0.180403	-0.152132	0.000556	

	87MC	1988JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES
1 INDFIN	1.84	0	-0.066667	-0.047619	0.125	-0.133333	-0.025641	0.315789	-0.16	-0.047619	0.125	-0.111111	0.375
2 SAIL	3.6	0	-0.142857	-0.166667	0.2	-0.066667	0.071429	-0.133333	0.230769	-0.28125	0	0.130435	-0.115385
3 CAPSTAR	3.68676	0.304348	-0.133333	0.038462	-0.037037	0	-0.115385	0	-0.130435	-0.28	-0.097222	0	-0.076923
4 LA-GROUP	3.9138	0	0	0	-0.05	-0.017544	0.148148	0	0	0.008065	0	0	-0.016393
5 ADONIS	4.2816	0.190476	-0.125	0.047619	0	0	0.136364	0.096	-0.038462	0	0.08	0.037037	0.107143
6 NICTUS	4.54208	0	-0.090909	0.1	0.036364	0	0	0.2	-0.090909	0	-0.083333	-0.245283	0
7 TRNPACO	4.84	-0.166667	0.285714	0.133333	-0.16	0.071429	0	0	-0.075556	0	0	-0.05	0.052632
8 DON	5.33	0	0.02	0.039216	0	0	0.037736	-0.090909	0.02	0.1	0	0	0.018182
9 AHEALTH	5.742	-0.137931	0.1	0.090909	0	-0.131667	-0.1	0	0	0	-0.222222	0.285714	-0.222222
10 FORIM	5.95	0.166667	-0.142857	0.066667	-0.0625	0	-0.166667	0.08	0.111111	-0.266667	0	0.136364	-0.08
11 PACIFIC	6.264	-0.125	0.007143	-0.094203	0	0	0	0.044	0.056911	-0.038462	0	0.064	0.015038
12 YORKCOR	6.272	0.028571	0.013889	0	0	0	0	0.180556	0	0	0	0	0
13 ADCORP	6.615	0	-0.1	0.122222	-0.052632	0	0	0	-0.055556	0	0.058824	0	0
14 CONFER	7.623	0	0	0	0	0	-0.196326	0	0	0	0	0	0.310044
15 BOWCALF	8.25	0.333333	-0.2	0	0	-0.09375	-0.137931	0	0.12	0.107143	-0.066667	-0.107143	0
16 ARIES	8.89	0	0	0.020455	0	0	0	0	0.015909	0	0	0	0
17 MARSHALLS	12.01365	-0.3	0.428571	-0.0025	-0.278351	0	0	-0.142857	0.054167	-0.083333	0.090909	0	0.166667
18 SERVET	12.0414	0.166667	-0.047619	0.05	0.047619	-0.045455	0.047619	0.092727	-0.130435	-0.05	0	-0.052632	-0.2
19 PERSBEL	12.30024	0.153846	-0.133333	0.153846	0	0.066667	-0.0625	0	-0.133333	0.076923	0.142857	0.107813	0
20 HARWILL	12.94386	0	0	0.066667	0.15625	0.054054	0	0.051282	-0.02439	0.05	-0.095238	-0.052632	-0.055556
21 RENTSUR	13.08625	0.047619	0.045455	0	0.115217	-0.019608	0.1	-0.036364	-0.113208	-0.110638	-0.02439	-0.025	0.025641
22 COATES	13.634	0	0	-0.01	0.432432	0	0.132075	-0.083333	-0.090909	0.002	0	0.040816	0
23 WESCAP	13.77675	0	-0.0625	-0.033333	0	0	0	0	-0.064286	-0.122137	0.043478	0	-0.166667
24 ANBEECO	14.973	0.130435	0.042308	-0.115385	-0.173913	-0.052632	-0.111111	-0.0625	-0.133333	-0.046154	0	-0.083333	0.036364
25 VESTCOR	15.7573	-0.04943	-0.048	0	-0.007563	0.077586	0.2	0.166667	-0.142857	0.043333	0.173163	0.038781	0
26 CONCOR	17.4947	-0.036145	0.25	-0.15	0	0	-0.117647	-0.133333	0	-0.2	0.4	0	0.028571
27 UNIHOLD	19.09908	0.266667	0.052632	0.08	-0.15	0.176471	0.05	0.047619	-0.063636	0.05	0	0.142857	0
28 GUBINGS	19.45698	0	0.182609	0	0.066176	-0.006969	0	0.017544	0.034483	0	0	0.016667	0
29 SHOREDITS	21.1827	0.125	0.055556	0.052632	-0.03	-0.105263	0.029412	-0.057143	0	-0.090909	0	-0.04	-0.071429
30 AF-&-OVER	26.9	-0.236287	-0.099448	0.153774	0	0.06383	0.065	-0.061033	-0.055556	0.030928	0.125	0	-0.080952
31 HCI	27.027	-0.111111	-0.0625	0.25	-0.04	0.152778	-0.098795	0	-0.055556	-0.029412	0.19697	-0.063291	0.248649
32 BIDVEST	27.51858	0.176471	-0.073684	0.090909	0	0.105263	0.242857	-0.04	-0.208333	0.221053	0.026087	-0.084746	0
33 GOLDSTEIN	28.68565	0.181818	-0.025641	0.315789	0.04	0.057692	0.090909	0.05	0.238095	0	-0.210526	-0.2	-0.083333
34 GLDODIA	29.625	0.0625	-0.088235	0.148387	0	0	0	0.085714	-0.073684	-0.058824	0.0625	0	0.058824
35 DIDATA	29.6666	0.058824	-0.333333	0.416667	-0.162353	0	-0.071429	0	-0.230769	0.2	0	-0.083333	0.090909
36 COROHL	30.48	0.022727	-0.213333	-0.046667	0.038462	0	0.037037	0.071429	0	0.033333	-0.033333	-0.172414	0.166667
37 CFC	32.3392	0.142857	-0.1875	-0.076923	0.196667	0.002857	0.068376	0.133333	0.002353	-0.061033	0.015	-0.05	0.052632
38 SABVEST	33.7386	0.028571	-0.277778	0.192308	0.141548	0	-0.058824	0	-0.159563	0.076923	0.071429	0.066667	0.0625
39 OMNIA	36.18454	0.263158	0	0.041667	0.12	0	0.037037	0.142857	0.125	-0.027778	0.371429	-0.041667	0.152174
40 TEMPORA	36.19	0.222222	-0.154545	-0.010753	0.119565	0	-0.029126	0	0.03	-0.1	0.022222	0.141304	-0.009524
41 BEARMAN	36.8298	0	-0.2	0	-0.25	0	0	0	0	-0.333333	0	0.25	0
42 OZZ	39.14408	0.064706	-0.166667	-0.133333	0.076923	-0.214286	0	-0.127273	0	-0.125	-0.011905	-0.05	0.052632
43 WINBEL	40.31522	0	-0.461538	-0.085714	-0.3125	0.227273	0	0	-0.074074	-0.12	0	-0.181818	-0.166667
44 SILTEK	41.22027	0.125	-0.148148	0.14087	-0.076923	-0.141667	0.165049	0.083333	-0.030769	-0.033333	0.066667	-0.0625	0
45 CEMENCO	41.8	-0.347015	-0.085714	0.09375	0	-0.085714	0.1375	0.114286	-0.089744	-0.084507	0.076923	0.285714	0.173333
46 BASREAD	42.12	0.057692	-0.054545	0.019231	0.09434	-0.051724	-0.218182	0.139535	-0.020408	0.0625	-0.098039	-0.086957	0.047619
47 FASHAF	44.4	-0.0625	0.066667	0.125	0	0.088889	-0.183673	0	-0.0625	0	-0.066667	0.071429	0
48 MASONITE	45.5625	0.111111	0.076	0.025641	0	0.09375	0.142857	0.1	-0.042727	-0.073171	0.210526	0.304348	-0.05
49 OXBRIDGE	45.72854	0.25	-0.166667	0	0.24	0.048387	-0.030769	-0.005556	0	-0.080645	0.052632	0	0.035833
50 MIDAS	46.092	-0.009091	-0.082569	0.1	0.063636	0.02906	0.20339	-0.014085	-0.071429	0.030769	0.252239	0.121212	0.297297
51 BRAIT	49.086	0	0	-0.375	0	0	0	0.04	0	0	0	0	0
52 GRINDROD	50.99288	-0.017094	-0.173913	-0.136842	0.20122	-0.031579	0.032609	0.105263	0	0.052381	0.168224	-0.2	-0.1
53 METAIR	51.15495	-0.105263	0.164706	0.111111	0.113636	-0.025306	0.065217	-0.020408	0	-0.041667	-0.021739	0.004444	-0.004425
54 BATSA	52.30575	0.333333	0.083333	0.249231	0.023399	0.0475	-0.105012	-0.133333	0	-0.006154	-0.060703	0.14966	0.073964
55 VOLTEX	54.6375	-0.02439	-0.15	0.117647	0.052632	0.125	0	-0.222222	-0.028571	0.029412	-0.114286	-0.096774	0
56 REX-TRUE	57.7374	0.057778	-0.029412	0.030303	0.02521	0	-0.016393	0	0	0	0.145833	-0.014545	0
57 CROOKES	57.96	-0.242424	0	0.153846	0.266667	0.052632	0	0.127	0.056364	0.020654	0.03204	0	0
58 SEARDEL	60.18696	-0.086022	0.035294	-0.129261	0.04	0.025641	-0.0625	0.12	-0.107143	-0.08	0.149428	-0.015823	0.04
59 INMINS	63.4306	-0.230769	-0.13	-0.195402	-0.214286	0.054545	0.172414	-0.076923	0	-0.166667	0.1	-0.090909	-0.2
60 DELTA	63.47952	0	-0.145	0.495614	-0.06	0.170213	0.090909	0	0	0.015	0.166667	-0.057143	0.090909
61 FINTECH	63.96	0.147541	-0.228571	0.333333	-0.083333	-0.091515	-0.033898	-0.157895	-0.2	0.09375	-0.071429	-0.025641	0
62 JDGROUP	64.7002	0	0.109091	0	-0.083333	-0.090909	0	0.3	-0.261538	0.020833	0.170213	-0.145455	-0.148936
63 ALEXNDR	65.51936	0	0.176471	-0.02	-0.004149	-0.21875	0.106667	0.024096	-0.129412	0.027027	0.168421	0.117647	-0.052632
64 ELLERINE	68.931	0	-0.02	-0.081633	0.154444	-0.05	-0.021053	0.021505	-0.210526	0.24	0.182796	0.027273	0.046296
65 CASHBIL	70.6	0	-0.275	-0.068966	0.111111	0.033333	0.290323	-0.05	0	-0.043421	-0.085714	-0.09375	0.172414
66 WINHOLD	74.16576	-0.230769	0.1	-0.272727	-0.25	0.133333	-0.264706	0.04	0.230769	-0.21875	-0.08	-0.043478	-0.090909
67 TOLARAM	75.68	0.2	-0.208333	0.052632	-0.125	-0.058824	0.1875	0.157895	-0.045455	-0.152381	0	-0.117647	0.266667
68 DALYS	77.7	0.182994	-0.040625	0.001629	0.006557	-0.019544	-0.036545	0.058621	0.042345	0	-0.015625	0.117932	0.067919
69 MEDCLIN	78.88638	0.153846	-0.133333	0	-0.123077	-0.035088	0.054545	-0.051724	-0.090909	0.1	0	0.218182	-0.104478
70 CHEMSERVE	83.29919	0.241379	0.110556	0.076923	0	-0.047619	-0.1	0.072222	-0.006218	-0.037234	0.01105	0.092896	0.015
71 CTP	83.7144	0	0.4	-0.142857	-0.15	0.27451	-0.076923	-0.058333	-0.115044	0	-0.05	-0.010526	-0.010638
72 INHOLD	87.4	0.011429	-0.124294	0.206452	-0.090909	0	0.029412	-0.01875	-0.012739	-0.051613	0.156463	-0.029412	-0.024242
73 GROPROP	90	0.020408	0	-0.02	-0.009796	0.043478	-0.041667	-0.021739	-0.111111	0.05	0.159048	-0.130435	0.05
74 BOUMAT	91.63812	0.146809	0	0.047619	-0.018182	-0.046296	0.087379	0	-0.107143	0	0.08	-0.074074	0.022
75 MOBILE	93.5979	0.111111	0	-0.1	0.008704	0.111111	0	0.1	0.272727	0	0.098571	0.133333	0
76 HUDACO	94.93176	-0.022222	0.079545	0.090526	0	-0.1	0.122222	0.089109	0	-0.009346	0.009434	-0.009346	0.132075
77 ELBGROUP	96.55254	0.244444	-0.107143	-0.16	-0.175238	-0.029412	0.078788	0.123596	0	-0.05	0.130526	0	0.02439
78 NEIHOLD	98.57425	-0.050847	0	0.142857	-0.00625	0.016393	0.016129	0.053968	0.009036	0.001493	0	0.015152	0.044776
79 PUTCO	105.1715	-0.045455	0.071429	0.088889	0.306122	-0.09375	-0.0689						

93	CENPROP	174.19564	0.058824	-0.055556	0.010412	0	0.0625	0	0.088235	-0.140541	0	0	-0.096774	0.107143
94	SANTAM	175.7	0.096774	-0.264706	0.16	0	0.206897	0.057143	-0.037838	-0.029412	0.060606	0.114286	-0.025641	0.078947
95	CBD-FUND	186.345	-0.015873	-0.017258	0.034483	-0.15	0.019608	0.046154	0.029412	-0.061786	0	0.02	-0.078431	0.06383
96	METLIFE	199.82468	0.027778	0	-0.054054	-0.057143	-0.030303	0.090625	0.029412	0.028571	0.027778	-0.027027	0.027778	0.040541
97	M-&F	209.25	0.0625	0	0.223529	0.020481	-0.018868	0.153846	0.166667	-0.042857	0.031343	-0.022222	0.022727	0.007407
98	DUNLOP	214.54914	-0.111111	0.15625	0.086486	-0.026316	0	-0.081081	0.117647	-0.021053	0.034409	0.027027	0	0
99	AMAPROP	233.08818	0.06383	0.01	0.049505	0	-0.09434	0	-0.055556	-0.058824	0.075	-0.011628	-0.023529	0.036145
100	METKOR	237.71136	-0.181818	0.051852	-0.014085	0.071429	0.066667	0.14375	0.111111	-0.175	0	0.212121	0.15	0.128261
101	PIONEER	261.7806	-0.016667	-0.128915	-0.020408	0	0	0.0625	0.058824	-0.048259	0.040816	0	-0.078431	0.06383
102	SYCOM	279.10566	0	0.013333	-0.013158	-0.013333	-0.016081	-0.042857	0.044776	-0.128571	-0.057377	0.017391	0.06359	0.076271
103	FOSCHINI	280.06787	0.060773	0.026042	0.111675	0.033676	0.086758	-0.012605	0.119149	-0.04943	0.009375	0.024	0.039063	-0.011278
104	HLH	282.84462	0.171429	-0.02439	0	0.15	0	-0.111111	0.1	-0.034091	0.058824	0.355556	0	0.016667
105	ADCOCK	297.135	0	-0.090909	0.05	0	0.010476	0.095238	0.086957	-0.04	0	0.125	0.08763	0.365188
106	ROMATEX	300.594	-0.117647	0.033333	0.032258	0	0.03125	0	0	-0.09375	0.02069	0.148649	-0.011765	0.160714
107	TOYOTA	313.89106	-0.111111	0.125	-0.022222	0	-0.071429	-0.076923	0.05	-0.168571	0	0.27451	0.076923	0.071429
108	HIVELD	321.64359	0	-0.086957	0.02381	0.061856	0.019417	0.066667	0.348214	-0.039735	-0.001379	0.211268	-0.069767	0.0375
109	PIKWIK	322.96618	0.021053	0	0	0.084227	0.068627	0.091743	0.008403	0	-0.008333	0.10084	-0.037385	0.096
110	WESCO	336.08	-0.446541	0.045455	0	0	-0.043478	0	-0.166667	-0.166667	-0.066667	0.142857	0	0
111	I-&J	343.28	0.090226	0.068966	0.032258	-0.0625	-0.013333	-0.02027	0.193103	-0.075145	0.128125	0.057143	0.054054	0.179487
112	VENTRON	372.25968	0.084746	-0.078125	0.152542	0.294118	-0.005909	-0.023256	-0.166667	-0.028571	-0.088235	0.096774	-0.070588	0.028481
113	FURNCAP	380.20815	0	-0.071429	0	-0.015748	-0.08	-0.130435	-0.1	-0.111111	0.03125	0.060606	0.183432	-0.075
114	IPROP	452.33741	-0.073684	-0.090909	-0.025	-0.051282	0.016216	-0.027027	0.027778	-0.040541	0.042254	0.135135	-0.052381	0.013158
115	LIVVEST	478.06	-0.075	-0.027027	0.222222	-0.046512	0.170732	0.020833	0.081633	-0.037736	0.174118	-0.050847	-0.053571	0.056604
116	EDCON	484.738	0.344797	0.016393	0.193548	-0.081081	-0.029706	-0.007444	-0.0625	0	-0.066667	0.107143	0.046452	0.015625
117	DOBYL	511.16464	-0.025	-0.051282	0.162162	-0.023256	0.047619	0.017273	0.090909	-0.208333	0.078947	0.073171	0.068182	0.155745
118	PLATE-GL	526.2804	0.062215	-0.035714	0.111111	0.026667	0.090909	0.011905	0.042353	0.011628	0.16092	-0.069307	0.021277	-0.017708
119	SAPPI	574.09323	-0.013699	0.152778	0.103614	0.011364	0.168539	0.076923	0.053571	-0.040678	0.027027	0.061404	-0.033058	0.094017
120	FRAME	574.52408	0.035714	-0.172414	0.028333	-0.083333	-0.063636	0.029126	-0.056604	-0.08	0	0.18913	0.084906	-0.086957
121	FIT	581.67298	-0.019337	-0.049296	0.066667	-0.013889	0	0.080282	0.02649	-0.032258	0.9	-0.122807	-0.1216	0.078704
122	SISA	599.5073	-0.036364	-0.075472	0.158878	-0.018182	0	0.101852	0.058824	-0.047619	-0.013167	0.096491	0.04	0.076923
123	PICKNPAY	619.45956	0.03876	-0.037313	0.031008	0.107769	0.041958	0.033557	0.097403	-0.053254	0	0.14375	-0.013661	0.067039
124	WOOLTRU	629.74716	0.052632	0.057143	0.003378	0	0.034483	0	0.02	-0.019608	0.063333	0.083871	0.029762	0.011561
125	ALTRON	631.26504	-0.034483	-0.047619	0.45	0.086207	-0.079683	-0.017544	-0.107143	-0.2	0.0875	0.126437	-0.142857	0.095238
126	AFROX	691.10799	0.112782	-0.02027	0.227586	-0.044944	-0.029412	0.109091	-0.011111	0	0	0.02809	0.144809	0.121951
127	PPC	694.88584	0.16	0.017241	0.016949	-0.033333	0.017241	0.016949	-0.016667	-0.00339	0.054422	0.129032	0.059701	0.059701
128	REUNERT	799.12234	-0.089744	-0.126761	-0.596774	0.2	0.236	0.038251	0.052632	-0.1	-0.055556	0.058824	0.481111	0.076923
129	TONGAAT	803.67428	0.058	-0.0625	0.035897	-0.009901	0.04	0.139423	0.127426	-0.046154	0.052419	0.015326	-0.018868	0.19231
130	A-V-I	807.35526	-0.050847	0.053571	0.016949	0	0.016667	0.059016	0.083591	-0.005714	0.063218	0.055556	0.105263	0.095238
131	MALBAK	867.48222	-0.186667	-0.147541	0.173077	-0.04918	0.096491	-0.056	0.050847	0.048387	0.076923	0.014286	-0.021127	0.029412
132	ALTECH	942.64088	-0.078947	0.04	0.021978	0.075269	-0.037	0.010638	-0.063158	-0.078652	-0.04878	0.00641	0.095541	0.046512
133	EUREKA	992.4	0	-0.25	0.288	-0.223602	0.221333	-0.065502	0	-0.199519	-0.126126	0.085911	-0.208861	0.032
134	ABSA	1083.346	-0.028571	-0.044118	0.015385	-0.030303	-0.015625	0.07619	-0.092308	0	0.176271	0.066282	0.081081	0.0275
135	NAMPAK	1148.7	0.009174	0	0.136364	0.04	-0.086923	0.142241	-0.075472	0.020408	-0.02	0.102041	0.103333	0.034483
136	NEDCOR	1178.25	0.052174	-0.082645	0.063063	0.008475	0.105882	0.100775	0.056338	0.093333	0.006098	0.166061	-0.122995	0.012195
137	KERSAF	1237.335	0.109091	-0.163934	0.003137	-0.072	-0.025862	0.216814	-0.036364	0.037736	0.175273	0.047619	-0.060606	0.135484
138	SAFREN	1385.484	0.095477	-0.055046	-0.035922	-0.051282	-0.048649	0.113636	0.076531	-0.094787	0.010471	0.03057	0.031746	0.082051
139	LIBERTY	1597.05	-0.052083	0	0.344655	0.058333	0	0.047244	0.12782	-0.023333	0.139932	-0.030303	-0.1375	0.014493
140	CGS-FOOD	1670.053	0.027451	-0.122137	0.108696	-0.039216	0.081633	0.075472	0.142857	-0.05625	0.076159	0.138462	0.027027	0.086316
141	AECI	1683.3	-0.090909	0.06	-0.017925	0	0	0.03	-0.029126	0.1	0.162791	0.004	0.021936	0.137255
142	TIGBRANDS	1750.9949	0.02	0.029412	-0.095238	0.052632	0.1	0.105	-0.058333	0.00885	0.026316	0.196581	0.021429	0.040559
143	PREM-GRP	1906.77314	0	-0.058824	0	-0.0625	0.066667	-0.034375	0.133333	-0.058824	0	0.0625	0.058824	0.016667
144	GENBEL	2052.0667	-0.317757	-0.060274	0.104956	0.019022	0.04	0	0	-0.064103	0.019178	0.083799	0.069588	0.012048
145	CGSMITH	2186.028	-0.037901	-0.090909	0.193333	-0.013966	0.048159	0.062568	0.137662	-0.109589	0.020513	0.042714	0.180723	0.067551
146	SABPLC	4456.322	0.046798	-0.029412	0.075152	-0.084555	0.083744	0.052632	0	-0.014444	0.071026	0	0	0.06383
147	JOHNNIC	4484.918	-0.08642	-0.051351	0.217391	0.02381	0.037209	0.053812	0.021277	-0.041667	0.0025	0.086957	0.02	0.196078
148	BARWORLD	5001.198	0.01	-0.034653	0.008205	-0.020346	0.142264	-0.009545	-0.014019	-0.028436	0.121951	0.108696	0.025882	0.076835
149	SASOL	6603.75	-0.057325	-0.067568	0.047101	0.057143	0.027027	0.006579	0.039216	-0.150943	0.044444	0.110294	0.019868	0.032468
150	TIB	9980.52	0.129032	0.047619	0.101439	-0.029167	0.287554	0.11	0.039039	0.020231	0.164306	0.277762	0	-0.009615
151	TEGKOR	11212.032	0.163934	0.014085	0.05179	-0.04	0.296296	0.117857	0.063898	0	0.174174	0.252864	0.010309	0
152	REMBR-BEH	27943.2	0.021583	0.014085	0.149264	-0.073171	0.276316	0.113402	0.041667	-0.005333	0.227882	0.234825	0.008929	-0.017699
153	VENFIN	53494.56	0.099656	0.01875	0.189018	-0.067385	0.228324	0.141176	0.072165	-0.028846	0.259406	0.230346	-0.006452	-0.025974
MARKET FACTOR		1988	0.024163	-0.034774	0.044448	0.009815	0.021597	0.019321	0.02621	-0.036051	0.013622	0.0583	0.012099	0.033139

88MC	1989	JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 INDFIN	1.6	-0.090909	0.14	-0.035088	0.090909	-0.166667	0	0.26	0.31746	-0.216867	0.046154	-0.191176	-0.090909
2 BEARMAN	2.21464	0.04	0.078923	0.178571	-0.023569	0	0	0	0.233333	0.135135	0.015873	0.097561	-0.066667
3 SAIL	2.32	0.26087	0.241379	-0.027778	0.085714	-0.078947	0.085714	0	-0.078947	0	-0.228571	-0.259259	0.25
4 CAPSTAR	3.22686	0.083333	0.923077	0	0	0	-0.44	0.071429	0	0.2	-0.166667	-0.026667	-0.041096
5 FORIM	3.91	-0.043478	-0.045455	0	-0.285714	-0.333333	0	0.3	0	0	0	0	0
6 NICTUS	3.91875	0	-0.05	0.052632	0.05	-0.125	0.057143	0.135135	-0.166667	0.057143	-0.054054	-0.342857	-0.130435
7 LA-GROUP	3.9798	0	0.083333	0.030769	0	0	0	0	-0.076923	0.033333	0.024194	0	0
8 ADONIS	4.4	0.264516	0	0.027027	0.052632	-0.05	0	0.1	0	0	0	-0.075	0.162162
9 TRNPACO	4.4	0.025	0.219512	-0.112	-0.142857	0.111111	0	0	0.25	-0.004	-0.020833	-0.042553	0
10 AHEALTH	4.437	0.085714	0.052632	0.125	0.111111	-0.26	0.081081	0	0.25	0.2	0.083333	0	0.076923
11 DON	5.33	0.25	0.214286	0	0	0	0	0.235294	0.019048	0	0	0	0
12 ADCORP	5.67	0	0	0.077778	0	0	0	0	0	0	0.033333	0.075269	0
13 BOWCALF	6.25	0.2	0	0	-0.133333	0.08	0.111111	0.066667	-0.15625	0.037037	-0.185185	-0.090909	0.25
14 MARSHALLS	7.281	-0.071429	0	0.134615	0.142857	-0.1875	0.230769	0	0.109375	0	0	0	0
15 YORKCOR	7.3024	0	0.621951	0.190476	0.153333	0.040462	0.044444	0.170213	0.159091	0.12	-0.107143	-0.12	0.045455
16 SERVET	7.546	0.319444	-0.052632	0	0	0.111111	0.072	0	0	0.05	0	-0.047619	0.05
17 CONFED	7.623	0	0	0	0	0	0.093211	0.052632	0	0	0.025	0	0
18 ANBEECO	8.53746	0.315789	-0.066667	-0.128571	0.090909	-0.083333	0.090909	0	0	0.083333	-0.076923	0	0.034483
19 COROHL	8.7	0.107143	-0.032258	0.28	-0.228571	0	-0.148148	0.130435	-0.038462	0.12	-0.259259	0.55	-0.129032
20 PACIFIC	8.7	0.111111	0.09	0.01875	0	0	0.349693	-0.095455	0	0	0	0	0
21 ARIES	8.8	0	0	0.025	0	0	0	0	0.018182	0	0	0	0
22 WESCAP	9.477	0.2	0.125	-0.074074	0	-0.104348	-0.029126	0.05	0.095238	-0.043478	-0.090909	0	0
23 PERSBEL	11.604	0	0	0.058824	0.055556	0.052632	0.2	-0.041667	0.043478	0	-0.041667	-0.047826	0
24 WINBEL	12.50664	0	0	0.133333	0.178471	-0.25	0.066667	-0.125	0.142857	0.25	-0.2	-0.0625	0.333333
25 GOLDSTEIN	13.49325	0.136364	-0.18	-0.219512	-0.0625	0	-0.1	0.111111	-0.233333	-0.043478	0.090909	-0.083333	0.136364
26 INMINS	13.8008	-0.2	-0.15625	0	0.592593	-0.232558	-0.090909	-0.1	0.296296	-0.057143	0.060606	-0.057143	0.090909
27 SHOREDITS	14.54112	-0.076923	0.041667	0.032	0.28	0.28125	-0.04878	0.025641	0	0	0	-0.075	-0.032432
28 WINHOLD	15.47712	0	-0.05	-0.210526	0.333333	-0.2	-0.1875	0.153846	0	0.2	0	0.055556	0.105263
29 COATES	17.238	0.176471	0	0.185	-0.014706	-0.014925	0	-0.090909	0.105	0	0	-0.076923	0
30 HARWILL	19.0749	-0.088235	-0.032258	0.066667	0	0.25	0	0	0	0	0	0	0
31 CONCOR	19.16544	0.055556	-0.052632	-0.027778	-0.142857	0.083333	0	0	0.215385	0.093333	-0.02439	0	0
32 VOLTEX	19.74	-0.071429	-0.076923	0.083333	-0.153846	0.045455	-0.043478	0.227273	0.407407	-0.157895	0.03125	0.030303	-0.029412
33 AF-&OVER	19.925	0.165803	0.026667	0.164502	0.022305	0.021818	0.067616	0.043333	0	0.019169	0	0.037618	-0.073955
34 RENTSUR	21.605	0.1	0.181818	0	0.007692	-0.038462	-0.1	0	0	-0.064444	0.097561	0.111111	0.04
35 DIDATA	21.75096	0.416667	0.117647	-0.068421	-0.058824	0	0	0.25	0.05	-0.142857	-0.111111	0	0.25
36 BIDVEST	23.60076	0.666667	0.058333	0.202186	-0.113638	0.015385	-0.015152	0	-0.025641	0.011579	-0.065789	0.131429	0.060606
37 BRAIT	23.634	0	0.653846	0	0	0	0	0	0	0	0	0	0
38 CEMENCO	23.71875	0.04	0.057692	0.090909	0	0.125	0.162963	0.1	-0.030303	0.0625	-0.058824	0	0.05
39 OZZ	24.53942	0.275	0.2	0	-0.25	-0.088889	0.219512	0	0	0.06	-0.122642	0	0.222222
40 VESTCOR	25.08265	0	-0.066667	-0.002286	0.090116	0	-0.066667	0	-0.142857	0.126667	0.323077	0.121839	0.02459
41 JDGROUP	25.6788	0.25	0.06	0.033962	0.019231	-0.09434	0	-0.041667	0.413043	-0.058462	-0.166667	-0.04	0.354167
42 GUBINGS	29.2464	0.016949	0.016667	0.032787	0.009524	-0.031746	-0.04918	0	0	-0.034483	-0.017857	0.018182	0
43 GLODINA	30.9375	0.111111	0	0	-0.225	0	-0.068966	0.037037	0.214286	-0.141176	-0.035714	0.037037	0.214286
44 UNIHOLD	31.55196	0.25	-0.033333	-0.006897	0.037037	-0.035714	0	-0.074074	0.04	-0.007692	-0.04	0	0.083333
45 BASREAD	31.59	0.227273	0.296296	0	0	-0.142857	-0.066667	0	0.107143	-0.16129	-0.134615	-0.111111	-0.025
46 EUREKA	31.8	0	0.387597	0	-0.187151	-0.140893	-0.004	0.107296	-0.031008	0.2	-0.166667	0	0
47 SABVEST	31.9935	0.205882	-0.02439	0.03975	0.175	-0.148936	0.1	0.045455	0.086957	0.022	-0.12	-0.022727	0.162791
48 HCI	33.9066	0.111111	0	-0.05	0.157895	0.109091	-0.166667	0.076923	-0.035714	0.037037	0	0.021429	0
49 FASHAF	34.4	0.133333	-0.058824	0	0	0.0375	-0.038145	-0.0625	0.066667	0	-0.0875	-0.041096	0.142857
50 CFC	39.68	0.05	0.011905	0.011765	0	0.252983	0.171429	0	0.01626	0	-0.0768	0.052632	0
51 REX-TRUE	39.6893	0.125	0.041667	0.146667	-0.055233	0	-0.036923	0	0	0.019169	-0.021944	-0.064626	0
52 CASHBIL	40.446	0.294118	0.022727	0.013333	0.088889	-0.142857	0	-0.02381	0.073171	-0.013636	0	-0.095238	-0.052632
53 LENCO	42.31732	0.083333	0.038462	0.037037	0.178571	0.042424	0.151515	0.052632	-0.1	0.055556	-0.078947	-0.057143	0.121212
54 CROOKES	45	0	-0.01495	-0.010118	0.085179	-0.078493	0.114991	0.074725	0.046798	0.029412	0	0.013714	0.000564
55 ELBGROUP	45.48474	0.071429	0.133333	-0.039216	0.038776	-0.028	-0.053498	-0.130435	0.025	0.243902	-0.009804	0.104167	0.09434
56 OXBIDGE	45.90729	0.208333	0.448276	0.047619	-0.068182	-0.02439	0.13825	0.144444	0.048544	0.203704	0	-0.061538	0.015574
57 TOLARAM	46.64	0.105263	0.142857	0.020833	0.125	-0.259259	-0.15	0.647059	0.071429	-0.133333	-0.12	0.090909	0.241667
58 ALEXNDR	48.66426	0.088889	-0.081633	0.113333	-0.081633	0.088889	-0.020408	0.145833	0.127273	0.129032	0.074286	0.048276	0
59 GRINDROD	49.2258	0.3	0.17094	-0.142336	0.205357	-0.074074	0.08	-0.111111	0.166667	0.101786	-0.166667	0.056	0.174242
60 ELLERINE	50.508	0	0.150442	0.076923	0.041429	-0.285714	0	0.03	0.213592	-0.04	0.125	0.08	0.222222
61 SEARDEL	54.13464	0.192308	0	0.032258	-0.010638	-0.086022	-0.023529	-0.096386	0.066667	0	-0.0875	-0.010274	-0.014493
62 TEMPORA	54.8574	0.346154	-0.071429	0	0.046154	0	0	0.102941	0.104	0.03125	-0.030303	0.0125	0
63 GROUP-5	55.35975	0.220779	0.035461	0.023973	-0.033445	-0.141869	0.040323	-0.011628	0.039216	0.089308	-0.176471	0.075893	0.058091
64 MEDLIN	59.124	0	-0.083333	-0.090909	0.1	0.145455	-0.015873	0	-0.080645	0	-0.035088	0.181818	-0.030769
65 INHOLD	62.8	0.129032	0.057143	0.081081	0	0.125	0.044444	0.333333	0.016667	0.229508	-0.066667	-0.12	0.033333
66 MIDAS	63.1436	-0.020833	0.06383	0	-0.007692	-0.014729	0.14	-0.052632	0.055556	-0.017544	-0.3825	0	-0.258824
67 METAIR	65.1475	0.066667	0.166667	0.035714	0.034483	0	-0.067035	0	-0.074074	-0.02	-0.040816	-0.021277	0.021739
68 PUTCO	73.99	-0.135135	0	-0.09375	-0.068966	0.02963	-0.111111	0.25	0.2	-0.222222	-0.107143	0.072	0.269231
69 KAROS	74.1	0	0	0	0	0	0	-0.025	0.025641	-0.05	0.057895	0.179487	0
70 DALYS	84	0.338295	0	0.006572	0	-0.052578	0.055496	0.047523	0.120656	0.043928	-0.091172	0.044158	-0.042291
71 OMNIA	88.6152	0	-0.038462	0.24	-0.080645	-0.018182	0.166667	0.079365	-0.058824	0.09375	-0.142857	0	0.06
72 MOBILE	89.34345	0.176471	0.2	0	-0.035139	-0.043478	0	0.045455	0.173913	-0.074074	-0.061733	-0.086957	0.142857
73 FASIC	89.41744	0.384615	-0.074074	-0.06	-0.085106	0.046512	0.024444	0.2	-0.18519	0.037736	-0.145455	0	0.006383
74 GROPROP	94.8	0.047619	0.045455	-0.043478	0.021591	0.071429	0.111111	0.16	0.051724	-0.04918	-0.034138	-0.056604	0
75 MASONITE	96.67924	0.017544	-0.068966	0.065926	0.017857	-0.035088	-0.145455	0.06383	0.088	-0.023529	0	-0.192308	0.02381
76 BOUMAT	99.75744	0.270059	0.095238	0	0.036232	-0.090909	-0.023846	-0.016129	0.032787	-0.031746	-0.139344	-0.142857	0.066667
77 COLLINAN	104.53899	0.125	-0.055556	-0.058824	0.0275	-0.130435	0.085714	-0.008553	-0.026667	0.164384	0	-0.066339	0.019737
78 HUDACO	108.92112	0.166667	-0.035714	0.145185	0.106667	-0.096386	0	0.093333	0.04375	-0.005988	-0.072289	0.038961	0.0625
79 NEIHOLD	111.80659	0.028571	-0.027778	0	0.1								

93	JOHNCOM	161.45943	0.113402	0.064815	0.043478	0.021667	-0.021207	0.0275	0.016949	0.083333	0.046154	-0.007353	0.148148	0.114516
94	SILTEK	166.32864	0.333333	0	0.32375	0.071429	-0.022222	-0.090909	-0.125	0.228571	0.034651	-0.068182	0	-0.02439
95	ROMATEX	176.358	0.189189	0.068182	0.042553	0	-0.062857	-0.017857	-0.009091	0.009174	-0.072727	-0.019608	0	-0.105263
96	METKOR	176.92672	0.08	0.166667	-0.047619	0.133333	-0.073529	0.362698	-0.082353	-0.012821	-0.051948	-0.260274	0.018519	0.06
97	FEDSURE	178.22	0.057692	0.036364	0.086842	0.016667	-0.032787	0.033898	0.016393	0.048387	0.056154	0.044776	0.057143	0.081081
98	TRENCOR	178.3026	0.039326	0.205405	0.210762	0.025926	-0.018182	0	0.037037	0.142857	-0.015625	-0.016825	-0.180328	0.1
99	SYCOM	181.14741	0.102362	0.014286	0.028169	-0.020548	0.088951	0.04	0.038462	0.080247	-0.062857	0.02439	0.009048	0.024691
100	FURNCAP	189.63	0.162162	0.139535	-0.057143	0.133333	-0.058824	0.041667	0.04	0.115385	0.02069	-0.103448	-0.030769	-0.007937
101	HLH	192.52056	0.295082	-0.050633	0.113333	0.107784	-0.174054	0.093333	0.121951	-0.021739	0.005556	-0.060773	0.031765	0.011561
102	CENPROP	201.63816	0.096774	0.228059	-0.025	-0.025654	0.078947	0.073171	0.022727	0.198267	-0.038462	-0.14	0.162791	0.04
103	POWTECH	206.77	0.206452	0.069519	-0.01	0.035354	-0.139024	0.058824	0.166667	0.02381	-0.069767	-0.075	0.027027	0.078947
104	SA-EAGLE	209.22699	0.043478	0.277778	0.073913	0	0	0.106383	-0.115385	0.113043	0	0	0	-0.16
105	IPROP	214.07578	0.012987	-0.076923	0.166667	-0.02381	-0.102439	0.055556	-0.026316	0.081081	0.1	0.045455	0.043478	0.130435
106	DUNLOP	221.578	0.131579	0.046512	0.016	0.255814	-0.074074	0	0.14	0.192982	0.058824	-0.142857	-0.05	0.052632
107	PIONEER	221.8637	0.04	0.012269	0.06	0	0.018868	0.018519	0.072727	0.148136	-0.015385	-0.125	0.071429	0.066667
108	FINTECH	225.80376	0.105263	0.285714	-0.037037	-0.230769	-0.026	0	-0.105263	-0.205882	-0.111111	-0.266667	-0.193182	0
109	AMAPROP	230.08336	0.116279	0	0.041667	0.06	0	0.010101	0.2	0.05	-0.111111	0.071429	0.008333	0
110	GRAYPROP	233.856	0.105263	0.01381	0	0.05	-0.028571	0.127451	0.089597	0.1356	0	-0.133333	0.068376	0.12
111	CADSWEP	248.8864	0.078947	0.036585	0.321647	0.036364	0.008772	0.104348	0.023622	0.115385	-0.049655	0.058394	-0.034483	0.014286
112	REUNERT	258.82976	0.071429	0.033333	0.080645	0.074627	-0.056667	0.220238	0	0.146341	-0.042553	-0.111111	0.001	-0.153846
113	M-&F	277.58709	0.066176	0.068966	0.419355	-0.061818	-0.041118	0.025641	0.05	0.071429	0.087111	-0.004149	-0.041667	0.055217
114	TOYOTA	280.37898	0.093333	0.109756	-0.096484	0	-0.09375	-0.048276	0.089597	-0.006667	0	0	0.068493	0.089744
115	FRAME	305.6796	0.190476	0.088	-0.010294	0.068702	0	0.071429	0.033333	0.096774	0.022353	-0.058824	-0.025	0
116	PIKWIK	307.55516	0.109489	0	-0.072368	0.12117	-0.149351	0.030534	0.02963	0.122302	-0.025641	0.013158	0.021412	0.134615
117	PEPKOR	313.25547	0.129032	0.085714	-0.039474	0.041096	-0.052632	-0.013889	0.028169	0.150685	-0.011905	-0.060241	0.012821	0.21519
118	DORBYL	318.24224	0.365385	-0.070423	0.006061	0.114458	-0.081081	0.132353	0.039474	0.088608	0.023256	-0.095455	0.055276	0.035714
119	LIVEST	324.72	0.071429	0.033333	0.001935	0.016393	-0.096774	0.089286	0	0.131148	-0.044058	-0.092308	0.050847	0.096774
120	FOSCHINI	405.21077	0.08365	0.031579	0.170068	0.004451	0	0	-0.029851	0.018462	0.123773	-0.067751	0.034884	0
121	VENTRON	407.3238	0.169231	0.052632	0.025	-0.04878	-0.053333	-0.055556	0	0	-0.147059	-0.155172	-0.102041	0.090909
122	I-&J	413.35602	-0.021739	0	0.022222	0	0.013043	0.021459	-0.054622	0.146667	-0.003876	-0.12	-0.022727	0.093023
123	WOOLTRU	505.925	0.142857	0.115	0.052466	0.130435	-0.065385	0.00823	0.040816	0.254902	0.035938	0.076923	0.028571	0.083333
124	AFROX	531.43718	0.021739	0.034043	0	-0.012346	-0.041667	0.126087	0.011765	-0.03876	0.008065	-0.1	0.062222	0.051502
125	PPC	583.21623	0.070423	0.131579	0.116279	0.041667	-0.1	0.127111	-0.08	-0.021739	0	-0.044444	-0.01907	0.066998
126	HIVELD	584.52849	0.228916	0.205882	0.579675	0.057895	-0.017413	-0.017722	-0.023196	0.050132	-0.100503	-0.068092	-0.027692	-0.14557
127	PLATE-GL	601.88688	0.032258	0.041667	-0.04	0.020833	-0.102041	0.1875	0.120957	0.052632	-0.041667	-0.086957	0.02381	-0.094884
128	SISA	608.1801	0.085714	0.184211	0.169578	0.146341	-0.042553	0.066667	0.166667	0.178571	-0.006606	0.015625	-0.046154	0.467742
129	PICKNPAY	632.35696	0.089005	-0.043269	-0.040201	0.117801	-0.139423	0.078212	0.025907	0.10101	-0.009174	-0.055556	0.028186	0.120192
130	ALTRON	702.12132	0.065217	0	0.163265	-0.122807	-0.0954	0.068182	-0.085106	0.05814	-0.021978	-0.146067	-0.131579	0.121212
131	TONGAAT	753.72012	0.149434	-0.003333	0.070234	0.0625	-0.076471	0.082803	0.072353	0.090141	-0.005168	-0.124675	-0.050445	0.03125
132	EDCON	782.17	0.123077	0.013699	0	0.027027	0.067368	-0.012658	0.179487	0.043478	0	0.020833	0.000816	0
133	ABSA	785.652	0.1375	0	-0.043956	0.068966	-0.053763	0.059091	0.022222	0.25	-0.017391	-0.079646	0.125	0.081197
134	A-V-I	789.828	0.06087	-0.077869	0.088889	0.061224	-0.115385	0.021739	-0.021277	0.108696	-0.064706	-0.010753	0.021739	0.165957
135	ALTECH	883.08811	0.111111	-0.03	0.041237	-0.089109	-0.090435	-0.012346	0.0375	0.084337	-0.061111	-0.112426	-0.010667	0.051213
136	NEDCOR	901.18	0.060241	0.147727	0.039604	-0.047619	0.035	0.127451	0.017391	-0.034188	-0.048673	-0.069767	0.071	-0.014423
137	TIB	913.44	0.087379	0.098214	0.022146	0.064516	-0.060606	0.169355	0.006897	-0.027397	0.064817	-0.086667	0.094891	0.2
138	SAFREN	1037.663	0.132701	-0.008368	0.162447	0.088561	-0.010169	-0.006849	0.072414	0.090032	0.047198	0.01831	0.077588	0.04
139	KERSAF	1044.6107	0.065341	0.186667	0.017528	-0.05618	-0.02381	0.195122	-0.040816	0.06383	-0.1372	-0.285714	0.216667	0.041096
140	MALBAK	1129.49	0.078571	0.086093	0.030488	0.076923	-0.162088	0.066667	0.0125	0.080247	0.017143	-0.11236	0.060759	-0.036585
141	NAMPAK	1160.172	0.133333	0.014706	-0.005797	0.137026	-0.089744	0.117746	-0.017949	0.083551	-0.024096	-0.08642	0.026486	0.116216
142	TEGKOR	1166.464	0.102041	0.074074	0.022638	0.059829	-0.08871	0.19469	0.007407	0.029412	-0.006171	-0.043478	0	0.287879
143	GENBEL	1357.8354	0.054762	0	0.255079	0.100917	-0.145	0.130604	0.022414	0.020236	-0.008264	-0.094017	0.169811	0.024194
144	CGS-FOOD	1479.567	0.037037	-0.047619	0.05	0.119048	0.021277	0.117083	0.169811	-0.064516	-0.051724	0.010909	0.007194	-0.018929
145	LIG-HOLD	1553.592	0.1	0.025974	-0.008101	-0.012987	-0.059211	0.118881	-0.0125	0.164557	0.001739	-0.076923	0.047619	0.181818
146	TIBBRANDS	1592.07805	0.150685	-0.035714	0.055556	0	0.064327	0.120549	0.027228	0.108434	-0.043478	0.056818	-0.021505	0.092352
147	FIT	1623.96622	0.064378	0.189516	0.074576	-0.066246	0	-0.087838	0.007407	0.014706	-0.089855	-0.18	0	0
148	CGSMITH	1820.988	0.123529	-0.005236	0.052632	0.041667	-0.088	0.149474	-0.003101	0.080871	-0.038849	-0.056886	0.015873	0.087188
149	PREM-GRP	1902.9348	0.222222	-0.090909	0.05	-0.047619	0	0.278	-0.08	0.092391	-0.04	-0.375	0.066667	-0.0625
150	AECI	2137.45	0.051724	0.114754	0.264706	-0.047619	-0.15	0.029412	0.142857	-0.0225	-0.041558	-0.078591	-0.014706	-0.014925
151	LIBERTY	2640.627	0.178571	0.030303	-0.012834	0.012121	-0.035928	0.055901	0	0.176471	-0.012955	-0.076923	0.055556	0.115789
152	REMBR-BEH	2905.2	0.153153	0.078125	0.006174	0.051095	-0.055556	0.176471	0.08125	-0.017341	0.042918	-0.119318	0.045161	0.191358
153	ADCOCK	3196.32	0.05	0.166667	0.020408	0	-0.03932	0	-0.083333	0.022727	0.133333	-0.058824	-0.014167	0.072961
154	JOHNNIC	3490.062	-0.016393	0.061667	0.063492	0.089552	-0.109589	0.146154	0.020134	0.052632	0.158125	-0.108108	0.090909	0.2
155	BARWORLD	3916.2	0.096845	0.098997	0.110773	0.068493	-0.031795	0.152278	0.011628	0.057471	-0.076087	-0.025882	-0.021739	0.128148
156	SASOL	4355.082	0.157233	0.016304	0.363636	0.056	-0.102273	0.113924	-0.022727	-0.046512	-0.018293	-0.059322	0.058559	0.097872
157	SABPLC	4588.16	0.075	-0.046512	0.121951	0.043478	-0.0625	0.105778	0.041254	0.073693	-0.02214	-0.085283	0.041254	0.18859
158	VENFIN	5783.76	0.166667	0.04	0.03022	0.075676	-0.080402	0.202186	0.072727	0	-0.001059	-0.089744	0.004695	0.252336
159	BATISA	8438175	-0.022039	0.056338	0.034667	-0.052835	-0.034286	0.035503	0.214286	-0.014118	-0.01253	-0.03	-0.033505	0.034667
MARKET FACTOR		1989	0.109944	0.059293	0.048541	0.021851	-0.03826	0.043438	0.036948	0.055604	0.009899	-0.057495	0.006885	0.05876

	89MC	1990JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 CAPSTAR	2.12366	-0.071429	-0.076923	0	-0.066667	0	0.071429	0	0	0	-0.033333	0	-0.272727
2 SPICER	2.2	0	0	0	0	0	0	0	0	0	0	0	-0.15
3 INFIN	2.36	0.16	-0.137931	-0.1	-0.044444	-0.023256	0.071429	-0.377778	0.071429	-0.066667	0	-0.178571	-0.130435
4 COMPASS	2.376	0	-0.25	0.566667	0	0	-0.111111	0.175	-0.361702	0.316667	-0.054054	-0.142857	0
5 FORUM	2.38	0	0	0	0	0	0	0	0	0	3.615385	-0.333333	-0.125
6 NICTUS	2.565	0.5	0	-0.166667	0.4	0	0.142857	0.125	-0.111111	0	-0.125	0	0
7 SAIL	2.9711	-0.2	0.05	0.047619	0	-0.045455	-0.047619	0.05	0	0	-0.047619	-0.1	0.111111
8 AHEALTH	3.567	0	-0.071429	0.076923	0.142857	0.1125	0.058824	0	0	-0.055556	0.058824	0.111111	0
9 JIGSAW	3.6	0.085714	0.052632	-0.125	-0.057143	-0.242424	0.12	0.071429	-0.016667	-0.071429	0	0	0.4
10 PALS	3.6	-0.166667	0.2	0.046667	0	-0.166667	0.2	-0.1	-0.074074	0	-0.016	0.130435	0
11 COASTAL	3.85355	0	0	0	-0.2	0	0.125	-0.25	-0.133333	0	0.153846	0	0.333333
12 INVICTA	4.032	0.071429	-0.333333	0	0.05	0.190476	-0.12	-0.090909	-0.35	0	0.384615	-0.111111	0.6875
13 BRANDCO	4.114	0.043478	0.458333	-0.142857	-0.166667	0	-0.2	0	0.1	0	0	0	0
14 LA-GROUP	4.125	0	0	0	0	-0.032258	0.206897	-0.042857	-0.104478	-0.166667	0.064	0	-0.038462
15 SPANJAARD	4.56	0.055556	0	0	0	-0.210526	0	-0.026667	0	0	0.214286	-0.176471	0.142857
16 SUPRGR	4.68	-0.142857	-0.066667	-0.071429	0.038462	0	0.111111	-0.1	-0.074074	0	0	0	0
17 BOWCALF	5.25	-0.12	-0.090909	0.25	0.01	0.041667	0	0	0.45	0	-0.285714	0.2	0
18 ARIES	6.16	0	0	0.027273	0	0	0	0	0	0	0	0	0
19 OMEGA	6.596	-0.272727	0.4375	-0.130435	0	0	0.0375	-0.055556	0.176471	0	-0.1	0.555556	0.071429
20 BATEPRO	6.70662	0.1	0	-0.227273	0	-0.235294	0	-0.076923	0.416667	-0.176471	0	0	0
21 ADCORP	6.74	0	0.15	0.121739	0.041667	0.04	-0.038462	-0.08	-0.130435	0.1	0.090909	0	0
22 CORWIL	6.74817	0	-0.111111	0	0	-0.060052	-0.111111	0	-0.046875	-0.333333	0	0	0.034483
23 SASFIN	6.7536	0	0	-0.25	0	0	0.111111	0.3	-0.046154	-0.090909	0	0.4	0
24 SERVEST	6.82363	-0.095238	0.052632	0	0.1	0	-0.003455	-0.567308	0	-0.111111	0	-0.125	0.142857
25 ADONIS	7.04	-0.075	0.081081	0.05	0	0.047619	0.136364	0	-0.041667	0	-0.130435	-0.05	0.052632
26 ADVSOURCE	7.7994	0	0.083333	0.076923	-0.071429	0.123846	0	-0.066667	-0.071429	0	0	0	0
27 CLYDE	7.92	0.8	-0.111111	-0.333333	0.25	-0.15	0	0.05	0.190476	0	-0.12	0.090909	0.09375
28 PSG	7.9287	0	0	-0.366667	0	0	0	0	0	0	0	0	0
29 COROHL	8.1	0.148148	-0.193548	0.24	-0.142857	-0.166667	0.1	-0.090909	0	0.02	-0.05	-0.052632	0.111111
30 DON	8.405	0.047619	0	0	0	0	0	0	0.027273	0	0	0.045455	0
31 CONFED	8.51235	0	0	0	0	0	0.434426	0	0	0	0	0	0
32 INMINS	8.7582	-0.166667	0.1	-0.030303	-0.21875	0	-0.28	-0.333333	-0.166667	0.2	0	0	0
33 WESCAP	9.00108	-0.05	0	0.073684	-0.111111	-0.1875	0.076923	-0.214286	0	-0.181818	0.111111	0.2	0
34 SAMRAND	9.20972	0.601563	-0.02439	-0.25	-0.083333	-0.345455	0.272727	0	0	-0.095238	-0.184211	0	0.090323
35 MARSHALLS	9.82935	0.058824	0.055556	0.044737	0	0.052632	0.1	0.045455	0.080435	-0.041667	0.043478	-0.083333	0.045455
36 ALEXWYT	10.764	0.054545	-0.103448	-0.173077	-0.089767	0	0	0	-0.25	0.333333	-0.125	0	0
37 SMGHOLD	10.9065	-0.033333	-0.022989	0	0	-0.252941	0.166667	0	-0.285714	0.1	0.181818	0	0.048387
38 WINBEL	10.94331	-0.25	-0.133333	0	-0.230769	0	-0.2	0	-0.375	0.4	-0.142857	0.166667	0.142857
39 PACIFIC	11.2344	-0.052632	0	-0.027778	-0.028571	-0.029412	-0.060606	-0.093226	-0.107143	-0.12	-0.181818	0.222222	0
40 VALCAR	11.385	0	-0.095238	-0.035088	0.127273	-0.032258	-0.122807	0	0.1	0.181818	-0.076923	0	0
41 AUTOQIP	11.52	-0.104478	-0.083333	0.272727	-0.171429	0.090909	0	0.083333	0	-0.2	0	-0.1	0.555556
42 WINHOLD	11.60784	-0.047619	-0.25	0	-0.133333	-0.153846	-0.090909	0	-0.5	0.6	0.25	-0.111111	0
43 OAKFLDS	11.68	0	-0.083333	0.090909	-0.166667	0.1	-0.090909	-0.1	-0.222222	-0.057143	0.151515	0	-0.210526
44 ROADCOR	12	0	0.181818	-0.076923	0.033333	0.048387	0	0	0	0	0	0	0
45 GOLDSTEIN	13.5932	0.12	0.25	-0.085714	0.03125	-0.212121	0.038462	0	0.259259	0.029412	-0.228571	0.04	0.153846
46 QUICKCO	14	0.111111	0.3	-0.230769	-0.4	-0.166667	0	0.2	-0.333333	0.25	-0.2	0	0
47 BEARMAN	14.19568	-0.047619	0.125	0.044444	0.101655	-0.040816	0.042553	0.040816	-0.117647	-0.2	-0.027778	0.142857	-0.125
48 JASCO	14.25	-0.083333	-0.090909	0	0.075	0.162791	0.27	0	0	0	-0.083333	0	0
49 PUTPROP	14.2695	0.090909	-0.166667	0	-0.1	0.577778	0	0.142857	0.25	-0.05	0	-0.084211	0
50 CONCOR	15.05856	0	0	0	0.025	-0.02439	0	0.0375	0.060241	0.25	0.03	0.038835	0.121495
51 VOLTEX	16.027	0.121212	-0.081081	0.117647	0	0	0.047368	-0.105263	-0.117647	-0.066667	0.05	0.034483	0.066667
52 WBHOLD	16.074	0	-0.111111	-0.03125	0.006452	-0.034483	0.142857	0.03125	0.181818	0.102564	0.125581	-0.106383	0.047619
53 ADVANCED	16.09625	-0.14	-0.011628	0	-0.176471	0.028571	0.027778	0	-0.071429	0	0	0	0
54 RENTSUR	16.3125	0.057992	0.018182	0.007143	-0.035714	-0.092593	0	0	0	-0.081633	-0.057778	-0.214286	0.060606
55 LITECH	16.85083	-0.1	-0.027778	-0.085714	-0.0625	-0.066667	-0.107143	-0.12	-0.090909	0	0	0.05	0.095238
56 GLOPVT	17.708	0.1	0.090909	0	0	0.133333	-0.264706	0.041667	0	0	-0.1	-0.111111	0.06875
57 SHOREDITS	18.31104	-0.085714	0	-0.125	0.071429	0.027397	-0.066667	0	-0.321429	0.157895	0	0	0
58 PERSBEL	18.87326	-0.047619	0	0.05	0	0	0.047619	0	0.227273	0	0.074074	0.034483	0.724138
59 YORKCOR	19.1744	0.130435	-0.076923	0	0	-0.137931	0	-0.125	0.12	0.263158	0	-0.104167	0.069767
60 HARWILL	19.564	0	0	0	0	0	0	0.05	0.142857	0.041667	0.02	0.090309	-0.018182
61 COATES	20.4	0.166667	-0.028571	-0.005882	0.0625	0	-0.13089	-0.048193	0.056338	0	0	0.22	0.136612
62 EUREKA	21	0	-0.236	0.308901	-0.268	0.043716	-0.13089	-0.048193	0.056338	0	-0.04	-0.083333	-0.181818
63 AUTOPE	22.1375	0.071429	-0.066667	0.035714	0.103448	-0.2	0.041667	0	0.125	-0.146667	0.028571	2.888889	-0.128571
64 OZZ	22.34186	0	-0.090909	-0.04	-0.166667	0	0	0	0.125	-0.146667	0.028571	2.888889	-0.128571
65 SONDOR	23.28	0	0	-0.175	0	-0.125	0.089286	-0.04	-0.097222	0.076923	0	0.035714	0
66 CAPTALL	23.79033	0.337209	0.043478	0	0.166667	0	-0.071429	0.1	0.074074	-0.034483	-0.142857	0.083333	0.037077
67 SPESCOM	26.33134	-0.1	0	-0.222222	-0.142857	0.233333	-0.459459	0.6	-0.125	-0.214286	-0.090909	0.2	0.083333
68 CMH	27.36	0.04	0.038462	0.037037	0.076923	0.083571	-0.172414	-0.041667	0.043478	0.041667	-0.28	0.033333	0
69 VESTCOR	27.54585	0.25	0.04	0	-0.217692	0.2	-0.083333	0	0	0	-0.000909	0	0
70 BOLWEAR	27.8	-0.266667	-0.151515	0.071429	-0.266667	-0.210526	-0.125874	0	0.08	-0.037037	-0.153846	-0.272727	0.2
71 AF-A-OVER	28.425	0	0	0	-0.024306	0	0.024911	0	0	-0.024306	-0.021352	0	-0.019608
72 GLODINA	29.214	-0.117647	-0.266667	0.045455	0	-0.086957	-0.07619	-0.052773	-0.147727	-0.093333	0.073529	0.068493	0.025641
73 GSHOLD	29.4496	-0.031746	0.106557	0.22963	-0.027778	0.057143	0	0.02027	0	0.15894	-0.111111	0.125	-0.027778
74 TOCO	29.85888	0.2	0.2	0.25	0	0.133333	-0.014706	-0.043011	0.011236	0.022222	0.141304	0.029762	0.047619
75 GUBINGS	29.97756	-0.111111	-0.166667	-0.125	0.005714	0.011561	-0.085714	0	0.0125	0.024691	-0.024096	-0.012346	0.032258
76 KAROS	30.15	-0.021739	0.088889	-0.020408	0.104167	-0.09434	0	-0.166667	-0.108696	-0.121951	-0.055556	0.29412	0.028571
77 FASHAF	31.65135	0.125	-0.033333	0.034483	-0.2	0.041667	0.066667	0	0	0	0.125	0	-0.033333
78 PUTCO	34.61675	-0.090909	-0.033333	0.103448	0.03125	-0.369697	-0.15	0	-0.023529	0.204819	0.06	-0.05	0
79 RETCORP	35.112	-0.107143	0.08	0	-0.111111	-0.25	-0.055556	-0.058824	0.25	-0.05	0.052632	0	0.15
80 DIDATA	36.5904	-0.1	0.277778	0.004348	-0.181818	0.055556	0.105263	0	0.047619	-0.136364	0.105263	0	0.142857
81 UNIHOLD	36.75997	0.076923	0.071429	0	-0.013333	0.071429	0.033333	0.032258	-0.125	0.067857	0.103448	-0.21875	0.16
82 BRAIT	39.087	0	-0.034744	-0.025	0	0	0	0	0	0	0	0	-0.025641
83 INHOLD	39.4	0.032258	0.0625	0.147059	-0.038462	0.173333	-0.018182	0	0.095238	-0.086957	-0.107143	0.146667	0.488095
84 TOLARAM	39.6	-0.077181	0.043478	0.229167	-0.1	-0.055556							

116	GROPROP	59.6	0.08	0.074074	0.034483	0.121333	-0.046875	-0.032787	-0.033898	-0.122807	-0.02	0.067755	0.020408	0.1
117	BATSA	91.42875	0.095361	0.014118	0.074246	0.078834	0.105263	-0.047619	0.1	0.090909	0.04125	-0.070957	0.021314	0.043478
118	UNITRAN	91.728	0.072289	-0.022472	-0.054977	0	0.024096	0.004706	0.024096	0.011765	0.023256	-0.090909	0.11125	0.103448
119	CULLINAN	101.72344	-0.032258	0	0	-0.190667	0.101695	0.076923	-0.023214	-0.058824	0	-0.046875	-0.102787	0.165049
120	SAAMBOU	102.36	0.074468	0	0.138614	0.069565	0.04065	-0.039063	0.111111	-0.092308	0.016949	0.083333	0.119231	-0.057143
121	NEIHOLO	106.928	0	0	-0.046875	-0.03082	-0.053571	0.056604	0.017857	-0.035088	-0.143636	-0.173913	-0.184211	0.16129
122	FASIC	107.45224	-0.021739	0	-0.088889	0	0.073171	0.097727	0.106383	0.076923	-0.017857	0	0.005455	0.037037
123	JGROUPO	108.06495	-0.015385	-0.046875	0.085246	0.09375	0.042857	-0.178082	0.033333	0.129032	0.194286	-0.02439	0.0625	0.258824
124	GROWPNT	112.31064	0.020036	0.089286	0.008197	0	-0.00813	-0.016393	-1.67E-05	0	0	-0.077329	0	0
125	CHEMSERVE	114.77745	0	0.092896	-0.019	0.010526	0	0.041667	0.14	0.041886	-0.012876	-0.130435	-0.025	0.015385
126	CTP	116.13611	0.104218	0.101124	0.122449	0	0.018182	-0.0625	-0.047619	-0.1	0	0	0	0.011111
127	FIRSTRAND	118.59	0.045455	0.130435	-0.038462	-0.136	0.095238	-0.130435	0.05	-0.095238	0.052632	0.085	0.047619	0.045455
128	OMNIA	119.00855	0.064516	0.030303	0	-0.005882	0	-0.0625	0.05	-0.047619	-0.083333	-0.018182	0.037037	-0.035714
129	NUCLICKS	120.4	0.113636	0	0	-0.040816	0.087234	0	0.09	0.100917	-0.141667	-0.048544	-0.015306	0.121495
130	PANPROP	126.6956	0.027027	0.008772	0.188974	-0.076923	-0.033333	0	-0.051724	0	0.007582	-0.019231	0.009804	0.067961
131	MSPPROP	129.276	0.026786	0	0.130435	-0.015385	0.018141	-0.088	0	0	-0.017544	0.053393	0.033477	0
132	KWV-BEL	132.3	0.124857	0.175	0.146809	0	-0.047619	-0.07	-0.043011	-0.078652	0.07878	-0.012048	0	0.012195
133	TELLY	137.44104	0	-0.056604	0.04	-0.096154	-0.021277	0.126087	-0.04	-0.041667	-0.043478	-0.090909	0	0.0225
134	DALYS	139.16	0.091076	0	0.130691	0	0.03826	0.143064	0.125158	0.055618	0.104843	-0.155588	0.114583	0.283489
135	CLINICS	140.58	-0.032258	0.066667	0.03125	0.060606	-0.028571	0.026471	0	0	0	0	0.029412	0.154286
136	BOUMAT	143.73445	-0.041667	-0.021739	0	0.022222	0.144565	0.030928	-0.2	0.025	0.060976	-0.241379	0.254545	0
137	GARDIAN	157.4	0.058824	-0.027778	0.037143	0	0	-0.085714	0	0	-0.003125	-0.188312	0.12	0.014286
138	CONSHU	159.711	0.16279	0	0.053125	-0.070707	-0.032609	0	-0.033708	-0.186047	0.04	-0.085714	0.015625	0.071692
139	CGU	160	0	0.03125	0.039394	0	0.333333	0	0	0.061364	-0.043478	0	-0.045455	0.071429
140	DELTA	165.2019	0.176471	0.073584	0.053922	-0.066667	0.020408	0.06	0.018868	-0.003704	-0.075472	-0.061224	0.021739	0.148936
141	MIDAS	165.35835	0.095238	-0.020899	-0.209091	0.011494	0.057955	0.108696	-0.117647	-0.377778	0.071429	-0.033333	-0.058621	-0.092593
142	SANTAM	170.1	-0.071429	0.057892	-0.036364	-0.056604	0.12	0.042857	-0.107143	-0.04	-0.083333	0.159091	-0.039216	0.122449
143	WESCO	170.47658	0.04878	0.209302	0	0	0.023077	0	0	0.038462	0.037037	0	0	0
144	HUDACO	170.52352	0.235294	0.071429	0.002667	-0.090909	0.075	-0.023256	-0.051429	-0.051282	-0.037838	0	0.011236	0.111111
145	HYPROP	171.67903	0.038462	-0.037037	-0.000385	0.058158	0	-0.053435	0	0.01729	-0.05	-0.035088	0.045455	0.06087
146	CBD-FUND	183.27	0	-0.060606	0.066667	0	0	0	-0.125	-0.022321	-0.019231	-0.058824	0.125	0.118296
147	MOBILE	191.45025	0.166667	0	0.035714	0.042529	0.033333	-0.032258	0	0.233333	0.027027	-0.003509	0.027027	0.210526
148	NEI-AFR	201.41975	0.213115	-0.01892	0	-0.085714	-0.21875	0.13	-0.015929	-0.192666	-0.208333	-0.131579	0.006061	0
149	FINTECH	222.59328	-0.28169	-0.117647	0.066667	-0.333333	0.65625	0.056604	-0.035714	-0.259259	-0.05	0.157895	-0.045455	0.02381
150	METLIFE	224.04123	0.122807	0.03125	-0.015152	0	0.015385	0.005303	0.030769	-0.149254	0.052632	-0.033333	0.017241	0.311017
151	AMAPROP	224.9	0.07438	0.076923	0.028571	0.055556	0.081579	-0.00641	0.032258	0.0125	-0.067901	-0.165563	0.055556	0.023077
152	FURNAPC	234.19305	0	0.14	-0.207018	-0.136364	-0.068421	-0.067797	0.030303	-0.070588	0	-0.139241	-0.115385	0.043478
153	OCEANA	234.219	0	-0.042553	0.013333	-0.035088	-0.168182	-0.016393	-0.011299	-0.097143	-0.113924	-0.214286	-0.136364	0.252632
154	JOHNCOM	246.86313	0.088235	-0.081081	0	0.029412	0.028571	0.033333	0	0.055556	0.010526	0.015625	0.128205	0.080682
155	ROMATEX	254.61	-0.011765	0.071429	-0.027778	-0.062857	-0.103659	0.066338	0.006667	-0.139073	-0.046154	0.290323	-0.0625	-0.013889
156	IPROP	255.37777	0.048077	-0.110092	-0.072165	-0.1	-0.091358	-0.138889	0.096774	-0.073529	-0.142857	0.037037	-0.071429	-0.0625
157	SA-EAGLE	260.82896	0.083333	0.098901	0.012658	0.020833	0.040816	-0.039216	0	-0.034694	-0.002169	-0.163043	0.051948	0.012346
158	POWTECH	273.47	0.04878	-0.093023	0.051282	-0.04878	0.068718	-0.075	0.081081	-0.05	-0.105263	0.176471	-0.075	0.162162
159	METCASH	274.62006	0	0	-0.05	0.15	-0.035294	0	0.097561	0	-0.066667	-0.097561	0.040541	-0.090909
160	FEDSURE	282.07	0	-0.05	0.15	-0.035294	0	0.097561	0	-0.066667	-0.097561	0.040541	-0.090909	0.085714
161	DISTELL	284.2	0.193548	0.081081	0.025	0.0125	-0.037037	-0.038462	-0.04	0.027778	0.027027	-0.099444	0.164179	0.012821
162	SYCOM	295.13904	0.036145	0.034884	-0.073034	-0.036364	0.02327	-0.032258	-0.066667	0.035714	-0.013793	0	-0.001119	0.111111
163	GRAYPROP	311.808	0	0.128929	0.033333	-0.096774	0	0.035714	-0.071034	-0.08	0.088957	-0.04	0	0.041667
164	SILTEK	330.81653	-0.01	-0.040404	0.169474	0	-0.204545	0	0.028571	-0.027778	-0.034286	-0.006024	-0.006061	0.012195
165	TOYOTA	337.561	0.176471	-0.01	0	0.006224	0	0.030928	0	0.05	0.047619	-0.002727	0	0
166	PIONEER	343.09968	0.125	0.052944	-0.066667	0.057143	-0.054054	-0.071429	-0.123077	0.037579	0.035714	0.107027	-0.032258	0.066667
167	DUNLOP	351.64188	0.133333	0.176471	-0.0375	0	0.038961	0.105	0.131222	-0.026	-0.231579	0.205479	0	0.088182
168	CENPROP	354.2292	0.038462	0.040407	-0.055556	0.033569	0.019608	0.076923	-0.142857	0.099167	-0.038462	-0.08	-0.065217	0.162791
169	TRENCOR	391.88994	0.163636	0.03125	0.060606	0	0.080692	0.013333	0.013158	0.194805	0.076087	-0.030303	0	0.170213
170	SA-DRUG	405.1005	-0.042857	-0.104478	0	-0.133333	-0.192321	0.020588	0	-0.058624	-0.208333	0.105263	-0.047619	0.07375
171	METKOR	405.95456	0.089286	0.213115	-0.054054	0	-0.085714	-0.205469	-0.08	-0.08966	-0.02439	0	0	0.050238
172	FRAME	425.70792	-0.051282	0.013514	-0.002667	-0.178082	-0.041667	-0.165217	-0.041667	-0.08	-0.130435	-0.0325	-0.054054	0.114286
173	PERKOR	437.78592	-0.041667	0.021739	0.038298	-0.016393	-0.058333	-0.015487	0.011236	-0.011111	0.011236	-0.022222	0.181818	0.085538
174	M-L-F	462.64515	0.183673	0	0.017241	-0.04	0	0.035714	0.074074	-0.034483	-0.072143	-0.035622	0.043307	0.18868
175	CADSWEP	487.21176	0.118901	0.069519	0	-0.036	-0.026316	0.027027	0.010526	0.041667	0	-0.0325	-0.0625	0.222222
176	PIKWI	493.404	0.028249	0	0.104651	-0.020408	0.060773	0.140625	0.054795	-0.051948	0.013689	0.058559	0.044872	0.17623
177	VENTRON	515.67894	-0.041667	0	0.021739	-0.06383	0.178182	0.14	-0.017544	0.017857	-0.017544	0.035714	-0.017241	0.070175
178	FOSCHINI	550.72577	0.230337	0.013699	0.042793	-0.001822	0.002222	0.002222	0.013333	0.028509	0.011461	-0.034115	0.022075	0.025918
179	LIBVEST	559.3883	0.044118	-0.014085	0.131429	-0.076923	0.013889	0.068493	0.012821	0.037975	-0.009268	-0.037975	0	0.078947
180	I-I-J	558.947	0.246809	-0.044369	-0.060714	-0.019011	-0.011628	-0.176471	0	-0.047619	-0.015	0	0.157895	0.136364
181	ADCOCK	670.38517	0.1	0.090909	0	-0.016667	0.000508	0.032423	0	0.123967	0.007353	-0.065693	0.014531	0
182	DOBLYL	684.95424	0.095238	0.021739	-0.031915	-0.043956	-0.018391	-0.155504	0.028169	-0.00274	-0.134615	0	0.031746	-0.032258
183	REUNERT	705.65424	0.030303	-0.176471	0.142857	0.015625	-0.100308	0.006944	0	0	-0.068966	-0.148148	0.073043	0.06383
184	AFROX	747.72872	0.22449	0.076667	0.021672	-0.045455	0.04127	0.015244	0.097561	0.013889	-0.013699	0.027778	0.193243	0.154734
185	EDCON	770.13	0.043299	0.042857	-0.06849	-0.062069	-0.054118	0	0.063492	0.059701	0	-0.098592	0.150938	0.09589
186	TIB	813.12	0	0.027778	0.082378	-0.10101	0.033708	-0.054348	0.063218	-0.027027	-0.019744	-0.028571	0.058824	

	90MC	1991JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES
1 CAPSTAR	1.6548	0	0	0	0	0.125	0.111111	0.24	0.048387	0.076923	0	0	0
2 SAIL	1.6863	-0.1	0.111111	0	-0.1	0	-0.166667	0	0.2	-0.166667	0	0	0
3 INFIN	1.88	0	0	0	0.1	0.136364	0.4	-0.285714	0	0	0.28	0	-0.53125
4 SPICER	2	-0.294118	1.5	-0.148148	0	0.217391	0	-0.035714	-0.074074	-0.08	0	0	0
5 NICTUS	2.7075	-0.142857	0.133333	0.5	0.041667	-0.06	-0.042553	0	0	0	0	0	0
6 COASTAL	2.79575	0	0	0	0	0	0	0	0	0	0.052632	0	0.15
7 PALS	2.8	0	-0.007692	0.041667	0	0	0	0	0	0.04	-0.19231	0.041667	0
8 INMINS	2.9194	-0.083333	0.090909	-0.25	0	0.111111	-0.1	-0.444444	-0.2	0	0	-0.75	0
9 LA-GROUP	3.2406	0	0	0.1	0.181818	0.073846	0.119403	-0.133333	0	0	-0.007692	0	-0.047619
10 COMPASS	3.608	0.433333	-0.302326	0.166667	0.212121	0.175	0	-0.066667	0.071429	-0.111111	-0.125	0.285714	0.209302
11 WINBEL	3.64777	-0.25	0.166667	-0.285714	0.2	-0.166667	-0.2	0.25	-0.2	0	-0.5	0	0
12 BRANDCO	3.74	0.272727	-0.178571	0.304348	0	0	0	0.166667	0	0	0	0	0.142857
13 SUPRGRP	4.0572	0	0	0.4	-0.142857	-0.166667	0	0	0	0.2	0.15	0.09375	0.142857
14 OMEGA	4.462	-0.366667	0.052632	0.15	-0.043478	0.136364	0.18	0.25	0	0	-0.142857	0	0
15 INVICTA	4.52	0.037037	-0.107143	-0.04	-0.25	0	-0.055556	0.058824	-0.055556	-0.117647	-0.066667	-0.071429	0
16 JIGSAW	4.8	-0.285714	-0.1	0.095238	0.086957	-0.04	-0.125	0.047619	0	0.363636	0	-0.333333	0
17 TRNPACO	4.95	0	0	0	0.142857	0	0.1	0	-0.05	0.184211	0	0.133333	-0.1
18 QUICKCO	5	0.5	-0.166667	-0.2	0	0.25	0	0	-0.6	0.5	0	0	-0.666667
19 SASFIN	5.0877	0	0	-0.071429	0	0.030769	0.19403	-0.125	0.285714	0.094444	0.111111	0.1	-0.090909
20 WINHOLD	5.15904	-0.375	0	0	0	0	0	0	-0.2	0	-0.25	0	-0.333333
21 SPANJAARD	5.415	0	0	-0.0625	0	0	0	0	0	0	0	0	0
22 WESCAP	5.4552	0	-0.416667	0	0	0	-0.428571	0	-0.1	0.111111	-0.4	-0.5	-0.166667
23 CLYDE	5.456	0	0	0	0.04	0.153846	0.071429	0	0	-0.166667	0.04	-0.028846	0
24 PSG	5.4606	0.642857	-0.043478	0	0	0	-0.090909	0	0	0	0	0	0
25 AHEALTH	5.742	0.05	0.190476	0	0.083333	0.230769	0.3125	-0.047619	0.05	0.047619	0	0.090909	0.041667
26 COROHL	5.88	-0.05	0.105263	0.133333	-0.133333	-0.120879	0	-0.0625	-0.066667	0	0.176471	0	0
27 BATEPRO	6.40452	0	0	0	-0.142857	0	0.325	-0.066667	0	0	0	0	0
28 ALEXWYT	6.44	0	0	0	0.285714	-0.111111	0	0	0	0.3125	0	0	0.1
29 SPESCOM	6.73132	0.038462	0.111111	0.166667	0.2	0	0.190476	0	-0.3	0.142857	0.125	0.111111	-0.1
30 ARIES	6.93	0	0.022727	0	0	0	0	0	0.009091	0	0	0	0
31 CORWIL	7.38023	0	0	-0.166667	0	-0.020408	0	0	0	-0.042553	0.111111	0	0
32 BOWCALF	7.5	0	-0.016667	0.285714	0.305556	0.021277	0	0.041667	0.03	0.06	-0.056604	-0.04	0
33 SERVEST	7.58324	0	0	0	0	0	0.4905	0.018519	-0.090909	0.2	0.083333	-0.076923	0
34 LITECH	7.58772	0.043478	0.041667	0	0	0	0.04	0.230769	0.5625	-0.1	0.044444	0.044444	0.06383
35 ADONIS	8.1535	-0.005	0.189189	0.025	0	-0.02439	0.025	-0.073171	-0.026316	0.027027	0.026316	0	-0.025641
36 OAKFLDS	8.5	0	0	0	0.166667	-0.142857	-0.166667	0.4	0	0	0	0	-0.285714
37 ANBEECO	8.53746	-0.2	0.16	0.090909	-0.041667	0.130435	0.538462	0.03	-0.175	0.212121	-0.05	-0.210526	0
38 ADCORP	9.24	0	-0.066667	-0.047619	0.2	-0.041667	0.043478	0	0	0	-0.083333	0	-0.090909
39 VALCAR	9.405	0.166667	0	0	0.285714	0.002222	-0.08046	0	0	0	0	0	0
40 TOLARAM	9.57	0	0	0	-0.107143	0.013333	-0.013158	0	0.093333	0.109756	-0.25	0	-0.033333
41 AUTOQIP	9.6	-0.357143	0	0.055556	-0.111111	-0.075	0	-0.054054	0.142857	0.0625	-0.05	0	0.184211
42 ROADCOR	9.75	0	0	0	0	0	0	0	0	0	0	0	0
43 JASCO	10.94608	-0.090909	0.2	-0.083333	0.272727	0.142857	0.05	0	0.0625	-0.294118	0.133333	-0.014706	-0.029851
44 DON	11.275	0	-0.043478	0	0	0	0.090909	0	0.025	-0.083333	0	0	0
45 SPURHLD	11.2779	0	0.153846	0.066667	0.09375	0.022857	0.558824	-0.132075	-0.021739	0.111111	0.2	-0.061667	0
46 CONFED	11.64625	0	0	0	0	0	0	0	0	0	0	0.507159	0.15
47 PACIFIC	11.8371	0.136364	-0.004	0.033058	0	0	0.2	0.243333	0	-0.111111	-0.15625	-0.037037	-0.115385
48 SHOREDITS	11.8481	0.037736	0	0	0.136364	0	-0.008264	0	0	0	0	0	-0.008621
49 ADVSOURCE	12.3396	0	0	-0.230769	0	-0.022	-0.111111	0.25	0	0	-0.1	0.222222	-0.090909
50 MARSHALLS	13.95525	0.043478	0.164583	0.037037	0	0.142857	0	0	-0.001563	0.032258	0.03125	0	0
51 SMGHOLD	14.2115	-0.030769	-0.047619	-0.083333	-0.090909	0.18	0.090909	0.166667	0	0	0.042857	0.071429	0
52 GLOPVT	14.446	0.25	0.2	0.083333	-0.153846	-0.127273	-0.145833	0	0.125	0.044444	-0.021277	0.043478	-0.005208
53 GOLDSTEIN	14.7926	-0.133333	0.423077	0.081081	-0.09	0.107143	-0.096774	0.142857	0.125	-0.116667	0	0.206897	-0.04
54 SPUR	15.00715	-0.068966	0.185185	0.25	0.025	0.05122	0.268293	0.096154	-0.105263	0.176471	0.166667	-0.061429	-0.03125
55 GLODINA	15.38604	-0.0625	-0.066667	-0.071429	-0.076923	0.166667	-0.071429	0	-0.076923	0	-0.083333	0	-0.090909
56 EUREKA	15.6	0.081731	-0.04	0.078704	0	-0.072961	-0.074074	-0.25	-0.113333	0.12782	0.106667	-0.096386	0
57 RETCORP	16.632	0.043478	0.041667	0.08	-0.074074	0.12	-0.107143	0.08	0	-0.074074	-0.08	-0.217391	0
58 ADVANCED	17.31875	0	0	0	0	0	-0.238462	-0.0625	-0.111111	0	0	0	0
59 GUBINGS	17.34474	-0.03125	-0.025806	0	-0.006623	0	0	0	0	0	0	0	0
60 LABAT	18.22472	0.218182	0	0	-0.180328	-0.4	0.666667	0	0	-0.2	0	0	0
61 CONCOR	18.2528	0.083333	0	0.423077	0.055556	0	-0.052632	0.055556	0.078947	0.121951	-0.022727	-0.023256	-0.047619
62 PERSBEL	18.3722	0.2	-0.05	0.008772	0	0	0.052632	-0.166667	0.1	0.181818	-0.153846	0.47	-0.0375
63 SONDOR	18.48	0	0	0	-0.071429	0.076923	0.014286	-0.044118	0	0	0.076923	0	-0.029851
64 PUTPROP	18.76175	-0.176471	0.071429	0	0	0.28	0.157895	-0.136364	0	0.052632	0	-0.22	0
65 RENTSUR	18.81375	0.228571	0.069767	0	0.086957	0.06	-0.056804	0.3	-0.046154	0.129032	0	0	0
66 HARWILL	19.564	0.037037	0.035714	0.086207	0	0	0	-0.206349	-0.16	0	0	-0.02381	0
67 PUTCO	19.81875	0	0.157895	-0.136364	1.736842	0.038462	-0.111111	0.25	-0.4	0.388889	-0.2	0.15	-0.15
68 WBHOLD	20.304	0.113636	0.102041	0.037037	0.335714	-0.083333	0.030303	0	0	0.058824	-0.008333	0	0
69 YORKCOR	20.7658	0	0	-0.0090909	0.022727	0	-0.155556	0	0	-0.105263	0.058824	-0.166667	0.133333
70 SAMRAND	20.85122	0.03125	0.157576	0.176471	0.25	0.005714	0.176471	0	0	-0.5	0.3	-0.230769	0
71 BEARMAN	21.17072	-0.142857	0	0.1	0.020202	-0.09375	0.068966	0.129032	0.057143	0.108108	0.089431	0.062016	0.071429
72 OZZ	24.77881	0.142857	0.2	-0.041667	-0.086957	0	0.190476	0.028	0.125	0.111111	0	0	0.1
73 CMH	25.65	0	0	-0.055556	0.058824	0.085556	0.222222	0.136364	0.08	-0.037037	-0.115385	0.018261	-0.147826
74 AF-&OVER	28.725	0	0	0	0.024	0	0	0.027344	-0.026616	-0.097656	0	0	0
75 BOLWEAR	30.4	-0.030303	0	-0.21875	-0.12	0.067273	0.026786	0.043478	0.166667	-0.071429	0	-0.038462	0
76 COATES	31.28	0	0.086957	0.045	0.45	0.103448	0	0.25	0.025	0.15561	-0.042553	0.022222	-0.043478
77 BASREAD	32.03424	-0.1	-0.074074	0.1	0	-0.054545	0.019231	0.037736	-0.163636	-0.326087	-0.096774	0	0.014286
78 BRAIT	35.451	0	-0.038947	0	0	0	-0.014239	0	0	0.013889	0.013699	0	0.081081
79 GSHOLD	36.812	0.064286	0.261745	0.067901	0.104046	-0.031414	0.048649	0.134021	0.145455	0.055556	-0.078261	-0.04717	0
80 CAPTALL	36.83664	0	0.148148	0.032258	0.125	0.055556	0.105263	0.066667	0	-0.023256	0.047619	0.045455	0.131522
81 MONEX	36.9	-0.047619	0	0	0	0	0	-0.5	0.5	0.1	0	0	0
82 FASHAF	38.06175	0.149425	0.1	0.090909	-0.166667	0.2	-0.083333	-0.181818	0	0	0	0	-0.111111
83 CASHBIL	38.52	0.173913	0.296296	0.157143	0.075	0.069767	-0.076087	-0.058824	0.075	0.116279	-0.042553	0.066667	0.03125
84 AUTOPGE	38.844	0	0	0.055556	-0.105263	0	-0.025974	0.2	0.055556	0.157895	0.045455	0.043478	0.041667
85 UNIHOLD	42.51996	-0.172414	0.083333	0.107692	0.037037	-0.035714	0.037037	0.071429	0.033333	0.125806	-0.029412	0.030303	0.029412
86 VESTCOR	43.0045	0	-0.440299	0.066667	0	-0.0625	0	0	0	0	-0.166667	0.04	0
87 CARGO	45	0.117647	0	-0.157895									

93	DIDATA	48.09586	-0.083333	0.272727	0.071429	0.133333	0	0.117647	-0.026316	-0.054054	-0.057143	-0.060606	0.258065	0.102564
94	PASDEC	49.164	0	0	0	0	0	0	-0.275	-0.206897	-0.173913	-0.052632	-0.033333	0.034483
95	NEIHOLD	50.52348	-0.027778	0	0.085714	-0.047368	0	0	0	-0.058824	-0.031875	-0.092088	0	-0.035714
96	MASONITE	50.58956	-0.068966	0.111111	0.030687	0.2	-0.055556	0.029412	-0.097143	0.297468	-0.05	0	0	0
97	CEMENCO	51.38448	-0.056604	0.05	0	0	-0.333333	0	0	0	-0.142857	0	0	-0.166667
98	UNISERV	53.8832	-0.153846	0.181818	0	0.038462	0.022222	0.076923	-0.035714	-0.185185	-0.090909	0	-0.1	0
99	SEARDEL	56.91789	-0.074074	0.066667	0.205128	-0.106383	-0.035714	0.024691	-0.060241	0.038462	0.049383	0.129412	-0.096354	0.024096
100	FINTECH	59.81643	-0.139535	0.891892	0.028571	-0.055556	0.441176	-0.041667	0.054348	0.030928	0.25	0.056	-0.05303	-0.184
101	S&SHOLD	61.976	0	-0.091667	0.142857	0.041667	-0.04	0	0	0.391667	0	0	0.125	0.138889
102	METAIR	63.73125	0	0.111111	0.04	-0.057692	0	0.25551	-0.067797	0	-0.018182	-0.018519	-0.018868	-0.019231
103	MR PRICE	66	0	0	0	0.142857	0.0225	0.125	-0.111111	0	0.125	0	-0.211111	0.142857
104	KAROS	67.73064	-0.288889	0.28	-0.03125	-0.032258	0.066667	-0.125	-0.014286	-0.185185	0.090909	0.333333	-0.125	0
105	PRIMA	70.992	-0.076923	0.066667	0.09375	0.057143	-0.054054	0.042857	-0.026849	0.015625	0	-0.030769	-0.095238	0.052632
106	INHOLD	71.8	-0.12	0.181818	0.076923	0.057143	0.206757	0.028571	0.222222	0.090909	0.041667	0.12	0.01	0
107	HCI	72.01285	0	-0.176471	0.035714	-0.103448	-0.038462	0.08	0.395349	-0.194444	-0.103448	0	0.04	-0.015152
108	RELYANT	75.99075	0.111111	0.325	0.018868	0	-0.074074	0.06	-0.09434	0	0	0	-0.166667	-0.019
109	ITLILE	76.5945	0	-0.0625	0.013333	0.031579	0	0	0.052632	0	0	0.05	0.030952	-0.035294
110	LENCO	79.04556	-0.15	0.147059	0.351351	0	-0.02	0	0	0.020408	0.04	0.038462	0.185185	-0.0625
111	GROUP-5	79.611	0	-0.032529	0.037464	0.086111	0.007673	0.035533	0.04902	0.079439	0.025253	-0.122494	0.121827	-0.076923
112	MEDCLIN	80.9544	-0.04878	0	0.282051	0.1	0.090909	0.145833	0.074074	0.172414	0.323529	-0.177778	-0.027027	0.011111
113	DEL CORP	88.1543	-0.1	0.174074	0.112903	0.014493	0	0.057143	0.027027	0.105263	0.047619	0.136364	-0.0462	0.06383
114	GRINDROD	88.354	-0.074286	0.382716	0.046512	0.053333	0	0.316456	0	-0.038462	-0.066667	-0.090909	0	0
115	ELB GROUP	92.4782	0	-0.012308	0.084566	0.073171	0.079545	0.094737	0.038462	0.018519	0.309091	0.035694	0.022222	-0.043478
116	SAAMBOU	92.977	0.25	-0.042424	0.063291	0.071429	-0.133333	0.166667	0.04	0.092308	-0.049296	-0.074074	-0.12	-0.072727
117	FASIC	93.93246	0	-0.142857	0.125	0.111111	0.141667	0.074627	0.111111	0	0	0.0375	-0.049398	-0.012821
118	MIDAS	95.60419	0.061224	0.269231	-0.106061	0.016949	0.068333	0.079365	0.176471	-0.0625	-0.066667	0.071429	-0.077333	-0.058824
119	CULLINAN	97.22577	-0.041667	-0.043478	0.363636	-0.044	-0.071429	0.107692	-0.023958	0.035714	-0.103448	-0.127692	-0.045455	-0.171429
120	NEI-AFR	103.81105	0.054217	-0.085714	0.1625	-0.085714	0.0625	0	0	-0.054706	-0.046875	-0.081967	-0.035714	-0.014815
121	OMNIA	105.05315	-0.045802	-0.02	0.265306	0.103226	0.109375	-0.014085	0.028571	0	-0.041667	-0.043478	0.121212	0.108108
122	BOUMAT	106.76322	0.012821	-0.113924	0.142857	0.0875	-0.011494	-0.116279	-0.052632	0	0.013889	0	0.109589	0.096296
123	TEMPORA	107.8754	0.086957	0.064	0.278195	0.235294	0.142857	0.034167	-0.285714	-0.028571	0.108824	-0.098143	0.044118	-0.053521
124	CROOKES	109.32	-0.132948	-0.116667	-0.103774	0.105263	0	0.069524	0.090909	-0.041667	0	-0.043478	0	0.059091
125	GROPROP	113.6	-0.054545	0.057692	0	0.114909	0.017241	0.016949	-0.056667	-0.010601	0	0.063393	0	0
126	CTP	119.58828	0.098901	0.05	0.142857	0	0	-0.041667	0.043478	0.041667	-0.024	0.02459	0.08	0.037037
127	OXBRIDGE	120.66392	0	0.043478	0.008333	0.071074	-0.015748	0	0.12	0.028571	0	-0.013889	0.022535	0
128	CHEMSERVE	124.29558	0	0.264899	0.131687	0.145455	0.015873	0.015625	0	0.277846	0	0.02439	-0.02381	-0.02439
129	INVSTEC	132	-0.117647	0.155556	0.076923	0.107143	0.103871	-0.023881	0.116208	0.041096	0.078947	0.02439	-0.010476	-0.02439
130	OCEANA	132.7437	0.017699	0.026087	0	-0.025424	-0.173913	0.005263	0.075269	0.4	0	-0.071429	0.076923	0.003571
131	GROWPNT	132.804	-0.060971	0	0.086957	0.03	0	0.066019	-0.009709	0.029412	0.095238	0	0	0
132	IMPERIAL	139.12056	0	0	0.538462	0.208651	-0.157895	0.2125	-0.226804	0.16	-0.016092	0.190476	0	0
133	TELJOY	143.24024	0	-0.056604	0.04	-0.096154	-0.021277	0.126087	-0.04	-0.041667	-0.043478	-0.090909	0	0.0225
134	GARDIAN	144.6166	0.021127	0	0.155172	0.03125	0.030303	0.029412	0.028571	0	0.052778	0	0.174863	0.116279
135	FIRSTRAND	144.9	0.043478	0.166667	0.071429	0.089167	-0.0625	0.2	0	0.055556	0	-0.057237	0	0
136	BATSA	144.9495	0.063333	0.274295	0.153752	0.100746	0.15	0.033043	0.010101	0.031667	0.212641	-0.067797	0	0.018182
137	UNITRAN	149.968	-0.010417	-0.105263	0.294118	0.090909	0	0.19	0	0	0	0	0.014286	-0.035714
138	ROMATEX	153.387	0	0.042254	0.033784	-0.052288	0.027586	0.020408	0.013333	0	0.013158	-0.090909	-0.172857	-0.217391
139	ALEXNDR	153.71938	-0.026316	0.243243	0.053043	-0.125	-0.119048	0.081081	0	-0.175	0.272727	0.149706	0	0.06383
140	YABENG	158.76504	-0.035714	0.277778	0.101449	-0.052632	0.105139	0.026316	0	0.038462	0.049383	0.058824	0.055556	0
141	JDGROUP	167.98215	-0.046729	0.029412	0.150476	-0.152542	-0.1	0.055556	-0.052632	0	-0.133333	0.04369	0	0
142	CLINICS	168.3	0.025641	0	-0.1	0.111111	0.2	0.063542	0	0	-0.04	-0.01667	0.03913	0.046025
143	FURNCAP	168.96033	-0.041667	-0.304348	0.1875	0.052632	-0.1	-0.066667	0.035714	-0.367816	-0.090909	-0.2	-0.075	-0.081081
144	SANTAM	169.1585	-0.019231	0.019608	0	-0.038462	0.16	0.048276	0.068966	0.290323	0.025	0	0.097561	-0.013333
145	IPROP	171.1614	-0.022222	0.090909	0.041667	-0.024	0.036885	-0.012245	0.008264	-0.098361	0.227273	0	0.133333	-0.092593
146	HYPROP	176.0075	0	0.065574	-0.000246	0.138211	0	0	0.014286	-0.00993	-0.029851	0	0	0.038462
147	SWF	194.6	-0.076923	0.266667	0.081081	0.0625	0	0.029412	0.057143	0.243243	0.032609	-0.130435	0.125	-0.044444
148	KWV-BEL	196.14	0.012048	0.440476	0.033898	0.065574	0	0	0.038462	0.185185	0.057875	0.07362	0	0
149	NUCLICKS	196.6	0.066667	0.09375	0.128571	0.139241	-0.04	0.264706	0.069767	-0.086957	0.047619	-0.077273	0	0.083744
150	HUDACO	203.08164	0	0.054	0.073171	0	0	0.272727	-0.020714	-0.037037	-0.096154	-0.042553	0.066667	0.25
151	ELLERINE	209.5842	0.04	0.132479	0.320755	-0.013571	-0.09292	0.073171	-0.045455	-0.015873	-0.080645	-0.017544	-0.012143	-0.074074
152	CONSHU	211.5453	0.111111	-0.025	0.285897	-0.081633	0	0.111111	0	0.02	0.071569	0.09434	0.051724	-0.016393
153	DALYS	217.56	-0.06068	0.084841	0.260818	0.343869	-0.081844	0	-0.012039	0.153746	0.088989	-0.146925	0.084837	-0.022247
154	DELTA	218.21445	-0.037037	0.25	0.163846	-0.040541	0.014085	0.041667	0.2	0.066111	0.010526	0	-0.010417	-0.042105
155	CGU	225	-0.022222	0.068182	0.051064	0.020833	0.020408	0.14	0.008772	0.058087	0	0.016667	0.040984	-0.023622
156	RMSPROP	226.5522	0.055556	0.052632	0.05	0.039683	0.013145	-0.015873	0	0.016129	0	0	-0.003905	0
157	METKOR	231.19872	-0.02381	0.170732	0.125	-0.074074	0	0.01884	0	-0.04	-0.041667	-0.06087	0.157407	-0.09612
158	WESCO	234.75188	0	0.053571	0.186441	0.285714	0.044444	-0.000638	0.621622	-0.093333	0.029412	0	-0.142857	-0.033333
159	PANPROP	238.80876	0	0.054545	0.096552	0.05	0.031746	0	0.038462	0.037037	0.005329	0.015038	-0.007407	-0.029851
160	CAPITAL	240.1022	0	0.023269	0.048	0.068702	0.04775	-0.035714	0.037037	0.083464	0	0	-0.034483	0.035714
161	SA-EAGLE	246.62508	0.02439	-0.135714	0.028986	0.042254	0.108108	0.170732	-0.041667	0.036957	-0.010753	0.043478	0	0
162	FEDSURE	251.702	0.131579	0.267442	0.132075	0.016667	0.032787	0.007937	0.102362	0.046429	0.131944	-0.055215	-0.012987	-0.013158
163	SYCOM	258.60835	-0.033333	-0.013793	0.118881	0.0375	-0.002169	-0.101266	0.085634	0.020134	0.019737	-0.064516	-0.019131	0.05
164	METLIFE	268.58223	-0.04	0.041667	0.133333	0	0.058824	0.129444	0.05	0.16	-0.041667	0.008696	0.094828	0.024016
165	MOBILE	272.2848	-0.086957	0.173175	0.265306	-0.080645	0.035088	0.220339	0.027778	-0.027027	0.056667	0.133333	0.082353	-0.

186 M-&F	628.1145	0	0.037037	0.071429	0.03	0.04918	0.0625	0.205882	0.073171	0.082727	0.06383	-0.04	0.041667
187 ALTRON	661.955	-0.111111	0.25	-0.02	0.091837	0.082617	0.035398	-0.042735	-0.017857	-0.090909	0.1	0	-0.109091
188 LIBVEST	663.96136	0	0.194927	0.144444	0.184466	0.040984	0.062992	0.007407	0.051471	0.022657	-0.006897	-0.027778	0
189 CADSWEP	708.72028	-0.068182	0.131707	0.16875	-0.123134	0.06383	0.18	-0.016949	0.017241	0.088814	0	-0.015625	0
190 ABI	721.86	-0.086957	0.142857	0.166667	0	0.107143	0.06129	0.015385	-0.060606	-0.080645	0.070175	-0.032787	-0.012203
191 I-&J	726.3939	-0.08	0.143478	0.102662	0.137931	-0.045455	0.025397	0.052632	0.044118	0.120563	-0.005128	0.056701	-0.02439
192 ALTECH	729.74525	-0.02439	0.125	-0.011111	0.022472	0.010769	0.06383	-0.052632	0.022222	-0.076087	0.058824	0.055556	0
193 RAINBOW	770	-0.074627	0.080645	-0.055821	-0.038462	0.133333	0.088235	0	-0.054054	0	0.257143	-0.034091	0.035294
194 FOSCHINI	776.59863	0.117895	0.071563	0.02109	0.583584	-0.034216	0.035429	-0.137969	0.056338	0.098182	-0.095591	0.00738	0.18315
195 PPC	795.33696	-0.035714	0.037037	0.1875	0.022556	0.117647	0.038158	0.025641	-0.025	0	0.089744	-0.011294	-0.018405
196 ADCOCK	929.62254	0	0.4375	0.043478	0.041667	0.2056	0.066667	-0.21875	0.15	0	-0.004348	0.058515	-0.025
197 HIVELD	951.93549	-0.007547	0.057034	0.125899	0.114754	-0.044118	0	0.046154	-0.073529	0.012698	0.022364	-0.046875	-0.036066
198 AFROX	1084.14383	-0.08	0.217391	0.035714	0.017241	0.067797	0.025873	0.09375	0	-0.014286	0.028986	0.099577	-0.025974
199 PLATE-GL	1087.48144	0.060241	0.159091	0.117647	-0.04386	0.009174	-0.018182	0.029074	0.055556	0.074561	-0.036735	-0.042373	0
200 PICKNPAY	1188.594	-0.096203	0.187675	-0.195755	0.168622	0.02046	0.082707	0.039352	0.111359	-0.146293	0.025822	-0.157704	0.010929
201 PREM-GRP	1227.1258	-0.041667	0.130435	0	0.076923	-0.035714	0.200741	0.15625	-0.054054	-0.171429	0.137931	-0.030303	0.011563
202 TIB	1240.8	-0.068627	0.145716	0.088372	0.068376	-0.04	0.166667	0.142857	0.015625	-0.010049	0.03125	0.060606	0
203 MALBAK	1260.8	-0.038462	0.2	0.166667	0.04	0.008242	0.077348	0.025641	0.065	-0.051643	0.287129	-0.007692	-0.015748
204 HLH	1295.4021	0.045455	0.195652	-0.036364	-0.075472	0.137959	0.054545	0	-0.041379	0.133094	0.05619	-0.030303	0
205 TONGAAT	1338.172	-0.033571	0.071429	0.105263	0.022222	-0.006211	0	0.125	0.028571	0	0.027778	0.040541	0.064935
206 KERSAF	1375.3166	0.084615	0.049645	0.022432	0.04969	-0.012821	-0.038961	0.081081	0.05625	0.030059	-0.052632	0.061728	0.023256
207 TEGKOR	1470.976	-0.041667	0.127902	0.097561	0	0	0.111111	0.24	-0.016129	0.005364	0.042623	-0.040881	0.04918
208 ABSA	1520.71	-0.0375	-0.012987	-0.046053	0.131034	0.036585	0.061176	0.102273	-0.030928	-0.026596	0.065574	0.061538	-0.018841
209 WOOLTRU	1533.984	-0.015625	0.222222	0.059351	0.002475	0.012346	-0.04878	-0.00641	-0.006452	-0.03987	-0.075342	0.074074	-0.034483
210 A-V-I	1672.247	0.042254	0.121622	0.084337	0.022222	0.043478	0.114583	-0.051402	0.004926	0.176471	-0.054852	0.080357	0.033058
211 SISA	1680.355	-0.1	0.209877	0.080306	0.076923	0.017857	-0.008772	0.070796	0.112545	-0.045455	0.087302	0.029197	0.021277
212 FIT	1758.716	-0.015873	-0.008065	0.00813	-0.001613	-0.004082	0.106557	-0.018519	-0.283019	0.007368	0.315789	-0.14	-0.023256
213 NAMPAK	1798.792	-0.062791	0.17866	0.126316	0.028037	0.022727	0.036036	0.078261	0.040323	-0.007752	0.04375	0.027695	-0.007407
214 EDCON	1853.692	0.025	0.170732	0.09375	-0.047619	0.121	0.067873	0	0.033898	0	-0.016393	-0.066667	-0.011503
215 AECI	1925.1	0.038462	0.055556	0.075088	-0.061017	-0.061372	0.038462	-0.111111	-0.11	0.019048	0.028037	-0.181818	0
216 SAFREN	2077.26	-0.016018	0.188372	0.080235	0.007326	0.116364	0.105863	0.089838	0.045946	0.047804	0.026819	0.007362	-0.01827
217 NEDCOR	2148.63	0.043956	0.010526	-0.079861	0.090566	0.103114	-0.009524	0.105769	0.057971	0.027397	-0.04	0.007222	-0.028169
218 GENBEL	2619.31986	-0.12963	0.198936	-0.027273	0.074766	0.043478	0.058333	0.133858	-0.083333	-0.062879	0.075	0.007752	0.076923
219 CGS-FOOD	2619.54	-0.013889	-0.028169	0.15942	0.025	-0.04878	0.022308	-0.037975	0.026316	0.064103	0.036145	0.002791	-0.011765
220 LIB-HOLD	2642.064	-0.047619	0.127983	0.221311	0.097315	0.015291	0.084337	0.038889	0.032086	0.047668	-0.025	-0.025641	0
221 BEVCON	3024.6	-0.127358	0.189189	0.118182	-0.00813	0.081967	0.002424	0.107692	0.041667	-0.106667	0.059701	-0.035211	-0.022847
222 SBIC	3120.32	-0.0625	0.232	0.25	0.071111	0.037344	-0.08	0.01087	0.063226	0.010204	0.010101	0.04	-0.005769
223 CGSMITH	3230.941	-0.088608	0.180556	0.058824	0.025556	0.016251	0.077932	0.05	0.047619	0	-0.013636	0.011521	0.018519
224 TIGBRANDS	3235.466	-0.083333	0.163636	0.078125	0.115942	-0.025974	-0.088667	0.051471	0	-0.034965	0.101449	0.012105	0.039474
225 SAPPI	3627.344	-0.047619	0.141667	0.007299	0.130435	-0.001282	0.059603	0.0375	-0.024096	-0.160494	0.052941	0.071429	0.006667
226 REMBR-BEH	3682.8	-0.068182	0.18481	0.066667	0.015625	0.019231	0.132075	0.183333	0.042254	-0.049011	0.114286	-0.025641	-0.026316
227 ISCOR	3788.792	-0.021277	0.021739	0.039894	0.089005	-0.033654	0.054726	0.179245	-0.152	-0.075472	0.107143	-0.046083	-0.05314
228 LIBERTY	5178.519	0	0.068538	0.108911	0.160714	0	0.061538	0.111594	0.043025	-0.06425	0.054054	-0.019231	-0.03268
229 BARWORLD	6095.75	-0.033816	0.069444	-0.006234	0.117616	-0.064546	0.08775	0.104651	0.006316	0.009623	0.067136	0.047573	-0.052312
230 SASOL	7101.36	-0.125874	-0.024	0.059426	0.047619	0.049242	-0.00361	0.043478	-0.006944	0.125175	0.226115	-0.012987	-0.039474
231 JOHNNIC	7261.425	-0.052632	0.178333	0.095238	0.065217	-0.066327	0.114754	-0.014706	-0.024876	0.023469	0.116751	0.054545	-0.086207
232 VENFIN	7490.7	-0.053333	0.19331	0.074627	0.038889	-0.02139	0.147541	0.202381	0.019802	-0.082485	0.12766	-0.009434	-0.028571
233 SABPLC	9297.708	-0.030815	0.147179	0.055878	0.010584	0.072895	0.072706	0.06	0.032495	-0.077834	0.073394	-0.058632	0.018268
MARKET FACTOR	1991	-0.012138	0.081916	0.06426	0.046272	0.018392	0.060224	0.02672	0.006931	0.015161	0.007064	-0.000864	-0.011832

	91MC	1992JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES	
1 INDFIN	0.8	-0.333333	0	0	0	0.5	-0.2	0.25	-0.333333	0	0	-0.5	-0.4	0.666667
2 INMINS	1.0616	1	0	0	0	0	-0.5	0	0	2	0	0	0.333333	0
3 SAIL	1.2848	-0.333333	0	0	0	0	0	0	0	0	0	0	0	0
4 CAPSTAR	1.4755	0.071429	0	0	0	0	0	0.066667	0	0	0	0	0	0
5 WINBEL	2.08444	0	0.5	-0.333333	0	1.5	0	-0.6	0.5	0	-0.333333	0	0.5	0
6 COASTAL	2.2366	0	-0.347826	0	0	0	0	0	-0.466667	0.25	0	-0.5	0	0
7 QUICKCO	2.36	0	0	0	0	0	2	0	0	0	0.666667	0	-0.2	0
8 SPICER	2.4	0	-0.26087	-0.117647	0	-0.333333	0.6	-0.0625	0	0	0	-0.2	0	0
9 PALS	2.5	0	0.08	0	0	0	-0.12	0.090909	0	0.166667	0.010714	0.037037	-0.071429	0
10 COMPASS	2.552	0	0.057692	0.090909	-0.083333	0.090909	-0.008333	0.071429	-0.116667	0.132075	0	0	0.140351	0
11 WINHOLD	2.57952	0	0.5	-0.333333	0	0.5	0	0	0	0	0	0	-0.333333	0
12 SPANJAARD	3.021	-0.133333	0.230769	0	-0.25	0	0.433333	0.0625	0	0	0	0	0	0
13 SERVEST	3.1592	0.5	0.444444	0	0	0.076923	0.043929	0.142857	-0.0625	0	0	-0.4	-0.111111	0
14 JIGSAW	3.2844	0.25	0	0	0	0	0	0.04	0	0.6	0	-0.125	-0.142857	0
15 TRNPACO	3.3	0	0	-0.111111	-0.075	0	0.081081	-0.0125	0	-0.210526	-0.166667	-0.2	0.5	0
16 SUPRGRP	3.381	-0.125	0	0.142857	0.075	-0.069767	0	0	0	0.25	-0.03	-0.444444	1	0
17 NICTUS	3.42	0	0	0	-0.111111	0	0	0.375	0	-0.363636	-0.142857	0.133333	0	0
18 LA-GROUP	4.1316	0	0.033333	0	0	0.040323	-0.032258	0.083333	0	0	-0.023077	-0.032258	-0.016667	0
19 BATEPRO	4.2294	0	-0.214286	0	0	0	0	0	0	0	0	0	0	0
20 MACMED	4.26636	-0.333333	0.5	0.4	1	0.2	-0.0625	0	0.238889	0.181818	0	-0.076923	0.666667	0
21 CLYDE	4.4	0.166667	0	-0.107143	0	0	-0.043478	0	0	0	0.136364	0.01	0.125	0
22 CORWIL	4.6475	0	0	0	0	0	0	-0.241803	-0.075676	-0.121212	0.034483	0	-0.066667	0
23 PSG	5.01814	0	0	0	0	0	0.1	-0.045455	0	0	0	-0.047619	0	0
24 COROHL	5.04	0	-0.025	0.025641	0	-0.133333	0	-0.076923	0	1.5	0.70068	0.06	-0.018868	0
25 NUWORLD	5.1	0	0.081081	0	0	0.375	0.181818	-0.230769	0	0	0	0.06	0.2	0
26 LITECH	5.26925	0	0	0.2	-0.083333	0.436364	0	0	0	0.066667	0.3	-0.1	0	0
27 OAKFLDS	5.44	0.2	-0.066667	-0.107143	0	0.2	0.1	0	-0.090909	0	-0.166667	-0.2	0	0
28 WBHO	5.58	0.447368	0	0	0	0.168182	0.041667	0	-0.28	0	0	0	0	0
29 BRANDCO	5.61	0	0	0	0	0	0	0	0	-0.075	-0.189189	0	0	0
30 AUTOQIP	5.92	0.044444	-0.042553	-0.177778	0.067568	0	0	0	0	0	-0.189189	-0.333333	0.5	0
31 OMEGA	5.9595	0	0.083333	-0.166667	-0.2	0.058824	0.388889	0	-0.28	0.222222	-0.181818	-0.166667	0	0
32 ADONIS	6.5937	-0.315789	0	0	-0.230769	0.1	0.045455	0	-0.043478	0	-0.090909	0	0	0
33 ALEXWYT	6.762	-0.090909	0	0	0	0	0	0	0.157143	-0.093333	0	-0.044118	0	0
34 ARIES	7.15	0	0.022727	0	0	0	0	0	0.009091	0	0	0	0	0
35 SPESCOM	7.52324	0.022222	-0.130435	0.05	0.071429	0.044444	0.276596	-0.116667	-0.2	0.625	-0.076923	0.5	0.3	0
36 ADCORP	7.7	0.15	0.043478	0	0	0	0	0	0	0	-0.224138	0	0	0
37 SASFIN	8.25338	0	0	0	0	0.1	0	0.136364	0	0	-0.004	-0.094828	0.047619	0
38 PACIFIC	8.70375	-0.130435	0.085	0.047619	0	0	0	-0.004545	-0.182692	0	0.176471	0	0	0
39 SMGHOLD	10.08025	0	0	0	-0.2	0.15	0	-0.230769	-0.1	0	0.066667	0.111111	0.5	0
40 GLODINA	10.12752	0	-0.1	-0.111111	0	0.075	-0.069767	0	0	-0.125	-0.142857	-0.166667	0.12	0
41 FORIM	10.3095	0	0.028571	-0.027778	0	0	0	0	-0.085714	-0.1	0	0	0	0
42 SAMRAND	10.348	0	0	0	-0.1	-0.111111	0	0	0.066667	0	0	0	0	0
43 GEN-OPTIC	11.02	0.318681	0	-0.166667	0	0	0	0.010101	0	0	0	0	0	0
44 VALAUTO	11.055	0	0	0	0	0	0	0	0	0	0	0	-0.507463	0
45 LASER	11.2	0	0	0	0.2	-0.166667	0	-0.1	0	0.055556	-0.263158	0.142857	0.25	0
46 DON	11.48	0	0.045455	-0.086957	0.047619	0	0	0	0	0.037736	0	0	0.681818	0
47 VALCAR	11.55	0	0	0	0	0	0	0	0	0	-0.45	-0.318182	-0.166667	0
48 BOWCALF	12	0.041667	0	0.2	-0.133333	0	0	0	-0.02	0.163265	0	0.181818	0.076923	0
49 SHOREDITS	12.38665	0.130435	0	0	-0.153846	0.037736	0	0	0	0	0	0	0	0
50 ADVANCED	13.4475	0	-0.25	0	0	0	-0.016667	-0.259259	0	0.4	0.071429	0.333333	-0.25	0
51 GLOPVT	13.514	0.333333	0	-0.033333	0.034483	-0.083333	0.731818	-0.111111	-0.0625	0.133333	0.411765	0.166667	0.128571	0
52 ADVSOURCE	13.6864	0	-0.2	0	0.25	0.192	0.090909	0	0	0	-0.083333	0	0	0
53 AHEALTH	13.824	0	0	-0.08	0.021739	0.305106	0.133333	-0.058824	-0.296875	0.066667	0.083333	0.211538	0.587302	0
54 JASCO	14.74359	-0.153846	-0.272727	0	-0.125	0.142857	0	-0.125	-0.142857	0.333333	0	-0.05	0	0
55 BEARMAN	14.83424	-0.133333	0.153846	0	0	0	0	0	-0.007407	0	-0.302326	0.233333	0.081081	0
56 RETCORP	14.904	0	-0.166667	0	0	0.2	0.055556	0	-0.157895	0.125	0.055556	-0.210526	0	0
57 GUBINGS	15.2325	0.126761	0.03125	0.054545	0.029412	0.005714	-0.011364	-0.114943	0.155844	-0.129213	0	0	0.134752	0
58 CMH	16.53	-0.081633	-0.333333	0.083333	0	0.341538	0	0	-0.125	0	0.071429	-0.072	-0.117647	0
59 SONDOR	16.8	0.076923	0	0	0.071429	0	0	-0.097222	-0.153846	0	0	-0.054545	0	0
60 ANBECO	16.92514	-0.1	0	-0.069767	0.041667	-0.2	-0.2	-0.0125	-0.133333	0	0	-0.230769	0.04	0
61 YORKCOR	17.05896	0	0.141176	0.111111	0.025	0	0	0	0	-0.390244	0	0	0	0
62 EUREKA	17.4	0	0.053333	-0.101266	0	0.112676	0.050633	0.050633	0.054217	0	0	0.188571	0.25	0
63 RENTSUR	18.125	-0.185714	-0.210526	-0.088889	0.02439	0.190476	-0.12	-0.090909	-0.025	-0.102564	-0.028571	0	0	0
64 SPURHLD	18.57844	0.054545	0	-0.034483	0.035714	0.136207	0.006289	-0.0625	-0.1	0.185185	0.120313	0.214286	0.176471	0
65 CONFED	19.11679	0	0	0	0	0	0	0	0	0	0	0	0	0
66 NINIAN	19.314	0.041667	0.0432	-0.04	0	-0.016667	0	0	0	0	-0.061433	-0.090909	0.1	0
67 STRANTR	19.96841	0.125	0.111111	-0.1	-0.077778	0.084337	-0.055556	0	-0.058824	0	0.25	-0.15	0	0
68 MARSHALLS	20.02275	0	0	0.0625	0	-0.058824	-0.0625	-0.028333	-0.042857	0.044776	0	-0.107143	0	0
69 VESTCOR	21.1113	0	0	0	0	0	0	0	0	0	-0.615385	0.1	0	0
70 GOLDSTEIN	21.48925	0.011905	0.205882	-0.051282	0.081081	-0.05	0.184211	0.022222	0.130435	-0.169231	0.2	0	-0.166667	0
71 HICORL	21.6	-0.333333	0.1	-0.090909	0	0	-0.15	-0.117647	0	0	-0.2	0.333333	0	0
72 SPUR	23.92746	0.225806	-0.105263	0	0.161765	0.112658	0	-0.176471	0.142857	0.1	0.253409	0.175926	0.133858	0
73 AF-&OVER	25.625	-0.099526	-0.078947	0	0	0	0	0.034286	0	0	-0.171271	0	0	0
74 AUTOPGE	25.67904	0.08	0	0.037037	0	0.235714	-0.060606	-0.032258	-0.133333	0.038462	-0.037037	-0.076923	0.25	0
75 PUTPROP	26.425	-0.2	0.166667	-0.142857	-0.033333	0.087719	0.370968	0	-0.235294	0.076923	-0.042857	0	0.166667	0
76 CEMENCO	26.856	0	-0.1	0.111111	0	0	0	0	-0.16	0	0	-0.047619	0	0
77 PROFURN	29.6174	0	-0.166667	-0.12	0.181818	0.153846	-0.045455	-0.047619	0	-0.1	0	-0.388889	-0.090909	0
78 HARWILL	29.63946	0	0.05	0	0	0	0	0.095238	0.345652	0.009934	0.147541	0	0	0
79 INVICTA	30.5422	0	0	0	-0.153846	0.181818	0	0	0	0.076923	0	0	0	0
80 MONEX	31.365	0.333333	0.1	0	0	0	0	0	0	-0.095455	0	0	0.086957	0
81 OZZ	31.8648	0.090909	0.111111	0.0375	-0.012048	0	0.158537	-0.007368	0	0	0	0.144444	0.165049	0
82 BOLWEAR	32	-0.098361	-0.090909	0	0	0	-0.157895	-0.125	-0.142857	0.166667	0.142857	0.0625	0	0
83 TOLARAM	32.625	-0.034483	0	0	-0.285714	0	-0.125	0.028571	0	0	0	0	-0.166667	0
84 BRAIT	32.70582	0	0.05	0	0	0.75	0	0	0	0	0	0	0	0
85 WBHOLD	32.9	0.057143	0.081081	0.25	0.136	0.118182	0.02439	-0.047619	-0.083333	-0.090909	-0.186	0	0	0
86 BASREAD	37.61163	-0.035211	-0.19708	0	-0.181818	-0.222222	-0.142857	-0.166667	0	-0.2	0.625	0.076923	-0.142857	0
87 CARGO	37.8	0.307692	0	-0.117647	-0.133333	-0.076923	0	0	0	-0.166667	0	0	-0.1	0
88 KAROS	41.31288	0.071429	0	-0.066667	0.035714	0.137931	-0.0							

93 MIDAS	45.96891	0.203125	-0.051948	-0.068493	-0.088235	0.209677	-0.068493	0	0	-0.235294	-0.115385	-0.130435	0
94 FASHAF	47.67735	0	-0.3125	0	0	0.090909	0.05	-0.047619	0	-0.083333	0.054545	-0.051724	0.454545
95 LABAT	48.85713	0	-0.25	0	0	0	0	0	-0.333333	-0.7275	0	-0.4	1
96 G5HOLD	49.14402	0.113861	0.115556	0	0	0	0.017778	-0.152838	-0.108247	-0.115607	-0.20915	-0.217391	0.222222
97 UNISERV	57.5056	-0.111111	0.125	0.111111	0.05	0	-0.047619	-0.23	0	-0.220779	0.75	0.333333	-0.142857
98 CROOKES	59.88	0.06087	-0.016393	-0.041667	0.043478	-0.041667	0.025217	0	-0.010417	0	0	0	-0.197368
99 PRIMA	62.118	-0.0125	0.148148	0.016129	-0.047619	0.133333	-0.079365	0.034483	0.016667	0.098361	-0.029851	0.076923	-0.014286
100 ITLILE	64.3575	0.036585	-0.176471	-0.028571	-0.044118	0	0	-0.310345	-0.318182	0	0	0	0.066667
101 FINTECH	64.94037	0.421569	0.013793	0.054422	0.193548	-0.005405	-0.194444	-0.034483	-0.014286	0.065217	-0.013605	0.172414	0.235294
102 PERSBEL	65.32728	0.25974	-0.072165	0.011111	0.005495	0	-0.021978	-0.033708	-0.023256	0	0	-0.083929	0
103 S&SHOLD	65.898	-0.04878	0.230769	-0.042553	-0.022222	-0.113636	-0.230769	-0.033333	0.006897	-0.142857	-0.083333	0.045455	-0.26087
104 MASONITE	67.77092	0.105263	0.128571	0.130435	-0.076923	0.083333	-0.076923	0	0	-0.333333	0.012658	0	0
105 UNIHOLD	68.73216	0	0	0.08	-0.055556	0	-0.058824	-0.0625	0	0	0	-0.333333	-0.25
106 METAIR	72.8519	0	0.019608	0.230769	0.0625	0	0.01476	-0.030303	-0.0625	0	0	-0.333333	0.05
107 PUTCO	72.933	0.117647	-0.105263	0.176471	0.06	0.15	0.086957	0	-0.1	-0.066667	0.014286	0	0.333333
108 CFC	73.2096	-0.02027	0	-0.034483	0	0.020408	0	-0.035714	0	-0.111111	0.013333	0.016667	0
109 COATES	74.8	0.045455	0.021739	0.192766	-0.054545	0	-0.019231	-0.019608	-0.08	0.000435	0.008772	0.043478	0
110 MEDCLIN	76.42572	-0.055556	0.029412	0.057143	0.037838	0.119792	-0.074419	0	0.076923	-0.047619	0.05	0.02381	-0.059535
111 FURNCAP	76.61052	0.5	-0.294118	0.666667	0.11	-0.099099	0	-0.066667	0.035714	-0.172414	-0.041667	0.086957	-0.08
112 SEARDEL	76.82744	0.094118	-0.107527	-0.060241	-0.013158	-0.053333	-0.042254	-0.073529	0	0	-0.079365	-0.131466	0
113 SABLE	79.14816	0	0.02439	0.071429	0	0.022222	0	-0.113043	0.004902	0.219512	0.28	0	0.125
114 NEI-AFR	81.00645	-0.06015	-0.52	0.583333	-0.097895	-0.029412	0	-0.090909	0	0	-0.533333	0	0
115 TOCO	82.70472	-0.05	-0.052632	0.018519	-0.054545	0.153846	-0.083333	-0.118182	0.023196	0.290323	-0.125	-0.161905	0.372159
116 MR PRICE	83.16	0	-0.125	0	0	0.171429	0	-0.125	-0.142857	0.333333	-0.1125	0	0
117 DIDATA	83.89998	-0.069767	0.2525	0.106383	-0.096154	0.148936	-0.018519	-0.056604	0.1	0.018182	0.303571	0.027397	0.306667
118 CASHBIL	91.592	-0.030303	-0.0625	0.011111	-0.111111	0	0	-0.05	-0.210526	-0.088333	0	0.018868	0.240741
119 HCI	96.64499	0.007892	0.015267	0.052632	0.071429	0.066667	0.03125	0.057273	-0.125	0	-0.142857	0	-0.136667
120 GROUP-5	97.50675	0.041667	0.058824	-0.016204	0	0.04	-0.038462	-0.103529	-0.081365	-0.125714	0	-0.403974	-0.472222
121 BOUMAT	100.83006	0.012821	-0.113924	0.142857	0.0875	-0.011494	-0.116279	-0.052632	0	0.013889	0	0.109589	0.096296
122 CULLINAN	103.47496	0.218391	-0.009434	-0.142857	-0.055556	-0.2	-0.029412	-0.159091	-0.090909	-0.06	0.255319	0.016949	-0.033333
123 KH-PROPS	104.735	0	0.06383	0	0	0.014799	0	0	-0.010417	0	0	0.058842	0.031579
124 AFLIFE	106.28145	0	0.018519	0.054545	0.127931	0.0625	0.029412	-0.114286	-0.016129	0.016393	0.212903	0.081081	0
125 GROPROP	108.4	0	-0.107143	0.04	0.035	0.04	0.096154	-0.070175	0	0.037736	0.069455	0	0.018182
126 FASIC	113.89878	-0.090909	-0.071429	-0.153846	0.036364	0.322807	-0.054054	-0.214286	-0.090909	0.08	-0.185185	0.1375	0.244898
127 TELJOY	116.56392	0.020408	0.1	0.018182	0.017857	0	0.052632	-0.003436	-0.069966	-0.074074	0	0	-0.002
128 OXBRIDGE	120.0875	0.042857	0	0	-0.041096	-0.291429	-0.020619	-0.105263	0	-0.023529	0.040964	0.084337	0.044444
129 ALEXDR	121.70489	-0.04	0.083333	0.009231	-0.057692	-0.020408	0.041667	-0.08	-0.108696	0.099512	-0.090909	0.2	0
130 GOLDFREE	125.3382	-0.054545	-0.057692	-0.020408	0.004167	0	-0.148936	-0.125	-0.028571	-0.117647	0.333333	0.0685	-0.047619
131 RELYANT	126.46703	-0.108053	-0.028571	-0.029412	0	-0.076364	0	0	0	-0.278215	-0.090909	0	0
132 GRINDROD	127.085	0.1	-0.101818	0	-0.029536	0.152174	-0.011321	-0.141221	0	-0.035556	0	0	-0.127358
133 LENCO	129.41318	0	0.071667	-0.032258	-0.033333	0.034483	0.166667	-0.028571	-0.058824	0	0.09375	0.042857	0
134 OCTODEC	132.22318	0.034483	0	0.033333	0.034903	0.016667	0	-0.098361	0.018182	0.071429	-0.0006	0.003584	0.071429
135 INHOLD	134.2	0	0	0.089286	0.016393	0.175484	-0.027778	-0.014286	0.014493	0.014286	-0.042254	-0.031765	0.107692
136 CTP	134.96385	0	0.092857	0.176471	-0.111111	0	0	0	-0.0625	0	0	-0.1	0.174815
137 OCEANA	136.74752	0.08209	0.206897	-0.085714	0	-0.03125	0.116129	0	0	-0.023529	0.042169	0.069364	0.102703
138 ELBGROUP	137.283	0.068182	-0.137234	0.133333	-0.102941	0.147541	-0.028571	-0.264706	0.05	0.333333	0.0675	0.206897	-0.028571
139 JDGROUP	142.66	-0.025	0	-0.153846	-0.045455	0	0.333333	-0.1875	-0.076923	0	-0.02	0.068966	0.129032
140 SAAMBOU	144.326	-0.137255	-0.011364	0	-0.114943	0.12987	-0.252874	0.076923	-0.114286	0.16129	-0.027778	-0.042857	0.044776
141 GROVPNT	145.452	0	0	0	0	0	0	-0.000924	0	-0.114173	0.066667	0	0
142 TMX	145.60195	0.257143	0.181818	-0.038462	0.1322	0.125	0.206349	0	0	-0.105263	0.117647	0.4	0.12782
143 DELHOLD	146.76732	-0.02	0	0.020408	0.3652	0.185185	0.03125	-0.090909	0.033333	0.096774	0.058824	-0.016444	-0.017143
144 IPROP	148.09182	0.061224	-0.038462	0	-0.06	-0.059574	-0.209302	-0.088235	-0.032258	-0.14	-0.007752	0.101563	-0.015385
145 OMNIA	150.02055	0.078049	0.046512	-0.022222	0.052723	0	0	-0.136364	0.052632	0.075	0	0.162791	0.02
146 FRAME	154.6765	1	-0.4375	0.666667	0.1	-0.212121	-0.115385	-0.026087	-0.080357	-0.223301	0	-0.125	0
147 BIDVEST	183.97932	0.111111	0.193333	0	-0.005714	0.063218	0.081081	-0.1375	0.131594	0.099476	0.071429	0	0.066667
148 UNITRAN	190.736	0.148148	-0.025806	0.066667	0.0625	-0.047059	0	-0.197531	-0.061538	0.17541	0.035714	0.034483	0.6
149 YABENG	193.52732	0.021053	0.030928	0.02	-0.068627	0.031579	0.040816	-0.038431	-0.021277	-0.076087	-0.058824	-0.15	0.088235
150 HYPROP	201.4138	-0.037037	0.038462	0.01923	-0.015385	0	0.078125	-0.057971	0.007615	0.045016	0	0.038462	0.022222
151 ROMATEX	203.785	0.111111	0.1	0	-0.045455	-0.009524	-0.019608	-0.06	0	-0.042553	-0.055556	0	0
152 METCASH	209.11176	0.134615	0.016949	0.016667	-0.04918	0.241379	-0.083333	-0.118182	-0.017544	0.160714	0.230769	0.0875	0.163218
153 CONSHU	217.563	0	-0.033333	-0.031897	-0.227273	0	0	-0.105882	-0.078947	-0.22	-0.038462	-0.04	0
154 APEX	228.94968	0.018519	-0.018182	0.018519	-0.036364	0.039321	0.076923	-0.107143	0.04	-0.038462	-0.02	0.084082	0.04
155 GARDIAN	241.152	0.083333	0.076923	0	0.103571	0.033333	-0.032258	-0.066667	0.071429	0.009167	0	0.084746	0.125
156 SFW	245	0.023256	-0.163636	0.055556	0.052632	0	-0.075	0	0.135135	0.064286	0.046512	0	-0.066667
157 CLINICS	246.51	-0.047	0	-0.086957	0.02381	0.162791	0	-0.216	0	0.105263	-0.047619	0.2	0.122917
158 METKOR	249.6512	0.27907	0.018182	-0.178571	0	0	0.216652	-0.181818	-0.044444	0.116279	-0.020833	-0.148936	-0.15495
159 IMPERIAL	250.2769	0.12	0.160714	0.013077	-0.076923	0.041667	0.168	-0.178082	0.083333	0.013846	-0.023077	0	0.259843
160 RMSPROP	250.3998	-0.058824	0	0	0	0.000357	0	-0.051233	0	-0.05	-0.052632	-0.052844	0
161 CHEMSERVE	253.94122	0.0125	0.061728	0.03186	0	0.08046	-0.031915	-0.120879	-0.16175	-0.121212	-0.103448	0.096154	0.052632
162 GRINTEK	261.0765	0.217391	0.035714	-0.195172	-0.043478	0	0.090909	-0.333333	0	0.0625	0.084337	0.5	0.111111
163 FIRSTRAND	261.8	0	-0.114286	0.032258	0.210938	0.263158	-0.041667	0.021739	-0.085106	0.162791	0.12	0.105357	0.016393
164 DELCORP	269.95146	0	0	0.1	0.241091	0.111111	0	0	0.033333	0.141935	0.016949	-0.016444	-0.017143
165 TEMPORA	270.3918	0.056548	-0.056338	0.134328	0	-0.021053	-0.070022	-0.029412	0	0.090909	-0.013889	0.042254	0.040541
166 HUDACO	271.2702	-0.066667	-0.14286	0.037037	0	0.071429	0.05	-0.020317	-0.11842	0.037037	-0.05	-0.030075	0.065891
167 KVV-BEL	273	0.085714	0	-0.036403	0	-0.055556	-0.029412	-0.090909	0.013333	0.052632	0.03268	0.075949	0
168 INVSTEC	274.4	0	-0.05	0.078947	0	0.142439	0	-0.032609	0.011236	0.022222	-0.021739	0.037778	0.130435
169 SA-DRUG	280.8885	0	-0.09434	0.0625	-0.098039</								

186 GRAYPROP	431.4156	0.133333	0.029412	0.030303	0	0	-0.029412	0.03	-0.125	0.128571	0.012658	0.03125	-0.090909
187 ELLERINE	457.5096	0.05	0	-0.009524	-0.002885	-0.009804	-0.069307	-0.021277	0	-0.021739	0.055111	0.195652	0.041818
188 CENPROP	479.02863	-0.032258	-0.091667	0.076923	0.035714	0	-0.017241	-0.017544	-0.007536	0	0.075472	-0.035088	0
189 WESCO	496.22212	-0.025862	0	0	0.006372	-0.107143	0.06	-0.018868	0	-0.038462	0	-0.3	0.085714
190 DUNLOP	501.5425	0.15	-0.130435	-0.0475	-0.055556	0.132353	0.002597	-0.093264	-0.014286	-0.008696	-0.030303	0	0.234375
191 SYCOM	502.6185	0.054422	0.006452	-0.012821	-0.090909	0.040643	-0.057971	0.046154	-0.007353	0.014815	0.021898	-0.036643	0.062992
192 FEDSURE	504.75	0.053333	0.012658	0.00375	-0.019108	0.168831	-0.094444	-0.04908	0.077742	0.097561	0.033333	0.209677	0.022222
193 DALYS	543.2	-0.102735	0.050717	0.040102	-0.011994	0.106403	-0.053787	-0.067303	0	0.133106	-0.013231	-0.011431	0.022015
194 REUNERT	544.5867	0.111111	0	0.05	0	0.250952	-0.028846	-0.089109	-0.108696	0.02439	0.178571	0.170909	0.176991
195 VENTRON	568.41768	0.095238	-0.065217	-0.023256	0.02381	0.108837	0.032258	-0.0625	-0.088889	0	0.012195	0.156627	0.125
196 MOBILE	569.52904	0.172414	0.029412	0.028571	-0.070988	0.27	-0.094488	-0.034783	-0.009009	0.148333	-0.056	0.127119	0.172932
197 JOHNCOM	587.9363	-0.04386	-0.027523	0.056604	-0.0625	0.066667	-0.008929	-0.030631	-0.066038	0.090909	-0.009259	-0.009346	-0.003774
198 DORBYL	618.65734	0.368421	0.086538	-0.00885	-0.017857	0.018182	-0.061429	-0.211538	-0.073171	-0.105263	-0.176471	0.17857	0.038596
199 DISTELL	760.2	-0.085714	-0.03125	-0.1481	0.115385	0.103448	-0.08125	-0.081633	-0.037037	0.056923	0	0.090909	0.041667
200 M-&F	768.93489	0.12	0.089286	0.016393	0.056452	0.107692	0	-0.194444	0.068966	0.094516	-0.029851	0.030769	0.089552
201 PEKOR	798.6319	0.066667	-0.008929	-0.009009	0.009091	0.065766	0.01437	-0.0625	0.022222	0.173913	0	-0.044444	0.104651
202 METLIFE	803.3029	0.24031	-0.08125	-0.047619	0.014286	0.126761	-0.05	0	0.013333	0.118421	-0.029412	0.212121	0.0425
203 RAINBOW	866.25	0.079545	0.021053	-0.051546	-0.021739	0.043111	-0.032258	-0.2	-0.083333	-0.060606	-0.032258	-0.1	0.18519
204 LIBVEST	909.55176	0.124286	0.02169	0.048951	0	0.1	-0.042424	-0.088608	0.111111	0.125625	-0.062857	0.182927	0.143617
205 I-&J	920.10654	0.175	-0.010638	-0.075269	-0.051163	0.127451	-0.026087	-0.107143	0	0.1215	-0.045455	0.047619	0.056818
206 PLATE-GL	926.05584	0.011504	-0.09292	0.070244	-0.12037	0.105263	-0.047619	-0.23	-0.045455	0.136054	-0.041916	0.025	0.040244
207 ALTECH	931.88953	0.052632	0.1	0.045455	-0.021739	0.048622	0.086957	-0.04	-0.066667	0.026786	0.017391	-0.017094	0.217391
208 PIKWIK	963.384	0.072519	-0.088968	0.121094	-0.067744	0.064885	-0.035842	-0.118959	-0.025316	0.121212	-0.027838	0.148	0.027875
209 ALTRON	989.69283	0.122449	0.018182	0.0625	0.02521	0.091639	0.039216	-0.083333	-0.008264	0	0.116667	0.044776	0.071429
210 TOYOTA	1031.34048	0.1875	-0.122807	-0.0086	-0.102041	0.045455	0.01087	-0.032258	-0.088889	-0.02439	-0.05	0	-0.026316
211 CADSWEP	1104.4611	-0.009524	-0.00641	0.142581	-0.028571	0.073529	-0.013899	0	0.027778	0.085135	0.0375	0.036145	0.151163
212 TONGAAT	1119.756	0.096585	-0.05618	0.166667	-0.055102	0.015119	-0.06383	-0.181818	-0.048757	-0.029851	-0.092308	0.016949	0.2
213 TRENCOR	1135.0209	0.165049	0.041667	0.024	0.003281	0.171875	-0.033333	-0.082759	0.015038	0.233556	-0.10303	0.162162	0.093023
214 HIVELE	1317.98804	-0.115646	-0.153846	0.309091	-0.214286	0.159091	0.039216	-0.150943	-0.066667	-0.07619	-0.078947	0	0.011429
215 M&R-HLD	1326.1545	0	-0.008103	0	0.052632	-0.095833	-0.069124	-0.084158	0.108541	-0.08	0.01087	0.139785	0
216 ABI	1388.6	-0.068966	0.018519	0.072727	0	0.125424	-0.021386	-0.046875	0.052459	0.043614	0.014925	0.176471	0.029
217 AECL	1393.45	0	0.055556	0.052632	-0.036458	0.043243	-0.119171	-0.088235	-0.093355	-0.132353	0	0.016949	-0.05
218 TIB	1518	0.042857	-0.008526	0.042254	-0.081081	0.117647	-0.065789	-0.088592	0	0.162356	-0.135135	0	0.078125
219 PPC	1566.6276	0.05	0.035714	0.011494	0.022727	0.122222	-0.05	-0.084211	-0.017241	-0.064327	-0.05	-0.001316	0.054795
220 ADCOCK	1573.75848	0.025641	-0.008333	0	0.020661	0.025587	0	-0.063492	0	0.076271	0	0.097953	0.014493
221 HLH	1711.1781	0.0625	-0.014706	0	0.014925	0.07	-0.055556	-0.191176	-0.072727	0.019608	-0.192308	0.012857	-0.142857
222 TEGKOR	1858.688	0.046875	0.004472	0.060606	-0.085714	0.125	-0.091667	-0.097859	0.050847	0.070465	-0.121212	0.034483	0.033333
223 PICKNPAY	1869.021	0.010811	-0.07754	0.205797	-0.123798	0.112045	-0.057935	-0.07754	-0.034783	0.099099	-0.017987	0.070028	0.044503
224 FIT	1891.347	-0.019048	-0.009709	-0.048078	0.057292	0.246305	-0.150198	-0.023256	-0.071429	-0.069744	-0.066667	0.160714	0.128205
225 PREM-GRP	1919.488	0.125	0.027778	0.108108	0	0.097561	-0.022222	-0.056591	0.02439	0.02381	-0.023256	0.071429	0.119111
226 AFROX	2119.75732	0.226667	0	-0.045652	-0.020501	0.127907	-0.023608	-0.031915	-0.027473	0.084746	-0.010417	0.065158	-0.01
227 MALBAK	2138.31	0.06	-0.018868	-0.038462	0.04	0.163462	-0.133333	-0.076923	-0.020833	0	-0.06383	0.291818	0.035714
228 KERSAF	2601.0896	-0.113636	-0.076923	-0.065	-0.015152	0.123077	0.013699	-0.081081	-0.036765	-0.059237	-0.033333	0.034483	0.1
229 EDCON	2645.664	0.040909	-0.004367	-0.105263	0.019608	0.054423	0.055556	0	-0.140351	0.020408	0.03	0.046214	0.046729
230 NEDCOR	2702.15	-0.043478	-0.075758	0.04918	-0.09375	0.076552	0.087662	0.134328	0.052632	0.1625	0.010753	0.06383	0.008
231 GENBEL	2764.8	-0.1	-0.031746	-0.016807	-0.008547	0.163793	-0.140741	-0.008621	-0.086957	0.064762	-0.101852	-0.061856	0.120879
232 WOOLTRU	2896.752	0.035714	-0.151724	0.069431	-0.092308	0.101695	-0.084615	-0.109244	-0.141509	0.031429	0.01087	0.075269	0
233 A-V-I	2984.696	0.048	0.015267	-0.022556	0.023077	0.052632	0.035714	-0.117241	-0.03125	0.102016	0	0.088889	0.088435
234 SAPPI	2986.128	0.033113	0.012821	0.012658	0.1175	0.051724	-0.027322	-0.033708	-0.087209	0.019108	-0.12375	0.058394	-0.089655
235 NAMPAK	3154.928	0.052239	0.035461	0.006849	0	0.153605	-0.011905	-0.096386	0	0.066667	0	0.047	0.066667
236 SISA	3207.8519	0.035944	0.102041	0	-0.024691	0.025316	-0.024691	-0.101266	-0.124563	-0.032787	-0.084746	0.027778	0.018018
237 ABSA	3301.941	0.05	-0.028571	-0.014706	-0.054726	0.031579	0.014286	-0.097938	-0.085714	0.25	-0.15	0.070588	-0.063736
238 SAFREN	3666.636	0.075682	0.05767	0.05289	-0.023983	0.049145	-0.011202	-0.030896	-0.01594	-0.012959	-0.060335	0.01308	0.080986
239 CGS-FOOD	3903.795	0.071429	0.033333	0.075269	-0.03	0.059588	-0.034314	-0.086294	-0.022222	0.090909	-0.052083	0.010989	0.168946
240 ISCOR	3921.96	-0.030612	-0.126316	0.060024	-0.115854	0.124138	-0.159509	-0.167883	-0.122807	-0.17	-0.1375	0	-0.014449
241 BEVCON	4213.14	0.067669	-0.014085	0.014286	-0.091549	0.151608	-0.013699	-0.107639	-0.011673	0.102362	-0.028571	0	0.065588
242 LIB-HOLD	4340.586	0.105263	0.06419	0.009091	-0.045045	0.132075	-0.041667	0	0.043478	0.1785	-0.080292	0.150794	0.082759
243 REMBR-BEH	4676.4	0.027027	0.072116	0.025	-0.085366	0.106667	-0.108434	-0.021622	-0.005525	0.089172	-0.071795	0.022099	0.040541
244 TIGBRANDS	4969.61	0.063291	-0.041667	0.031056	0.018072	0.094675	-0.031784	-0.067416	-0.012048	0.085366	-0.05618	0.119286	-0.021505
245 CGSMITH	5275.75	0	0.072727	0.012712	-0.016736	0.158894	-0.074074	-0.08	0.008696	0.051724	0.008197	0.040732	0.070579
246 SBIC	5301.248	0.116054	0.080763	0.037582	-0.031496	0.252033	-0.103896	-0.057971	0.108154	0.013988	-0.006897	0.055556	-0.039474
247 JOHNNIC	7509.225	0	0.018868	0.054074	-0.00885	0.053571	0.067797	-0.063492	-0.135593	0.007843	-0.10396	0.127072	0.019608
248 SASOL	8004.54	0.049315	-0.007833	0.032368	-0.049351	0.098361	-0.034826	-0.033505	-0.106667	0.009851	-0.048485	0.003185	0.028571
249 LIBERTY	8540.222	0.060811	0.086624	-0.017857	0.024242	0.112426	-0.031915	0	0.038462	0.106667	-0.034483	0.112245	0.119266
250 VENFIN	9171.54	0.003922	0.113281	0.026786	-0.078261	0.084906	-0.078261	-0.028302	-0.019417	0.090772	-0.083942	0.075697	-0.003704
251 BARWORLD	9424	0.11	0	0.04973	-0.041195	0.060866	-0.056899	-0.055997	-0.02411	-0.004706	-0.130024	0.012002	0.028966
252 SABPLC	12654.32	0.01794	-0.030666	0.027273	-0.059469	0.139819	-0.035235	-0.043478	-0.027273	0.028037	-0.022909	0.043729	0.049516
MARKET FACTOR	1992	0.041566	-0.001031	0.013288	-0.005928	0.064836	0.00653	-0.055451	-0.018034	0.027706	-0.007543	0.016548	0.06082

	92MC	1993JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES	
1 INDFIN	0.32	0	0	0	0	0	0.4	0	0.571429	-0.090909	0	-0.3	0	0.285714
2 WESCAP	0.63644	0	0	0	0	0	0	0	0	2	-0.166667	-0.2	0	0
3 SAIL	0.7227	-0.5	0	0	0	0	0	-0.2	0	0	0.5	0	1.5	0
4 INMINS	0.7962	0	0	0	0	0	0	1.5	2	-0.166667	-0.2	-0.25	0	0
5 WINBEL	1.56333	0.666667	-0.4	0	0	0	2.333333	1.5	-0.4	-0.333333	0.5	0	0.333333	0
6 COASTAL	1.67745	0	0	0	-0.4	0	0	0	0	0.333333	0	0	0	0
7 SPICER	1.7	0	0	0	-0.416667	0	0	0	0	0	0	0	0	0
8 WINHOLD	1.93464	1.5	-0.4	0	0	0.666667	0.8	1.777778	0	-0.68	0.25	0	1	0
9 CAPSTAR	2.30178	0	0	-0.375	0	0	-0.1	0	0	-0.222222	0	0	-0.142857	0
10 PALS	2.5	0	0.076923	0	0	-0.107143	0	0	0	-0.2	0.27	0	0.041667	0
11 NICTUS	2.85	-0.0625	-0.333333	0	0	0	0	1.25	-0.111111	0	0	-0.075	0	0
12 OMEGA	2.97975	0	0.133333	0	0.058824	0.176471	0	0	0	0	-0.25	0	0	0
13 BATEPRO	3.44394	0	0	-0.090909	0	0	-0.1	0	0.111111	0	0	0	0	0
14 QUICKCO	3.54	0	2	-0.333333	0.875	0	0.533333	-0.217391	0.166667	-0.047619	0	0	0	0
15 JIGSAW	3.57	0	0	0	0	0	-0.166667	0	0	0	0	0	0	0
16 LA-GROUP	3.8874	0.033898	0	0	-0.016393	0.033333	0	0	0	-0.05	-0.192982	-0.066667	0	0
17 ADONIS	3.8995	-0.4	0	0	0	0	0	0	0.083333	0	0	0	0.076923	0
18 AUTOQIP	4.04965	-0.166667	0	-0.2	0	0	0	0.1	0.227273	-0.074074	0.6	-0.375	0.2	0
19 PSG	4.3636	0	0.05	0	0	0	0.047619	0.095238	0	0	0	0	-0.043478	0
20 SPANJAARD	4.56	0	0	0	-0.011765	0	0	-0.047619	-0.125	0	-0.428571	0	0.5	0
21 COMPASS	4.576	0.076923	0	0	0.142857	0.875	-0.173333	0	-0.166667	0	0.2	0.191667	-0.071942	0
22 CORWIL	4.6475	-0.071429	0	0	0.061538	0	0	0	0.015385	0.076923	0	0.178571	0	0
23 TRNPACO	4.84	-0.016667	0	0	-0.137931	0	0	-0.12	0	0	0	0	0	0
24 SAMRAND	5.174	-0.1875	-0.076923	0	0.083333	0.230769	0	0.5625	-0.5	0	0	0.15	0.195652	0
25 CLYDE	5.28	0.481481	0.175	-0.066667	-0.047619	0.075	0.093023	0.170213	-0.090909	-0.06	-0.042553	0.138889	0.1	0
26 GLODINA	5.45328	0.071429	0	0	0	0.166667	-0.142857	0.166667	-0.142857	-0.166667	0.2	0.333333	0	0
27 SUPRGRP	5.5296	0	0	-0.1	0	-0.222222	0	0.142857	0.25	0	-0.15	-0.125	0.2	0
28 OAKFLDS	5.61	0	0.3	0.038462	-0.074074	0	-0.04	-0.166667	0.65	-0.090909	0	0.333333	0.25	0
29 RLSPPROPS	5.9255	0	-0.071429	0.007077	-0.032258	0.333333	0.125	0	0	-0.206333	0	-0.142857	-0.166667	0
30 ADCORP	6.083	0	0	0	0	0	0	0	0	-0.111111	0.125	0	-0.222222	0
31 ADVANCED	6.1125	0.166667	0	-0.142857	-0.066667	0	0	-0.285714	-0.1	0.055556	0	0	0	0
32 NUWORLD	6.375	-0.083333	0.818182	0.5	0	0.066667	0	0.03125	0.151515	-0.157895	0.125	0.222222	0.199091	0
33 HICORL	6.48	0	-0.1875	0	0	0	0	0.076923	0.071429	0.666667	-0.2	0.05	0.428571	0
34 BRANDCO	7.48	0	-0.166667	0	0	0	0	-0.4	2	-0.111111	0	0	0	0
35 COROHL	7.56	0.076923	0.053571	0.271188	0.333333	0.6	-0.15625	-0.074074	-0.016	0.097561	0.111111	0.033333	0.047742	0
36 PACIFIC	7.6593	-0.3	0.071429	-0.066667	0	0	0.071429	0.08	0.333333	0.1	-0.090909	0	0.35	0
37 ALEXWYT	8.119	-0.076923	0.083333	-0.153846	0.090909	0.083333	-0.076923	0.083333	0.046154	0.198529	0	-0.066667	-0.071429	0
38 ADVSOURCE	8.5824	0	-0.090909	-0.1	0	0.111111	0.06	-0.04	-0.125	0.190476	0.25	0	-0.083333	0
39 ARIES	8.8	0	0.027273	0	0	0	0	0	0.013636	0	0	0	0	0
40 SERVST	8.84576	0.5625	0.04	0	-0.230769	0	0.039	0	0	-0.2	0	0.125	0	0
41 BASREAD	9.15264	0.166667	-0.285714	-0.1	0.111111	0.3	-0.076923	0.083333	0	0.076923	-0.285714	0.8	0.222222	0
42 RETCORP	9.315	0	-0.133333	0	0.615385	-0.047619	-0.1	-0.166667	0.066667	-0.0625	0	0	0	0
43 LASER	9.5	-0.15	-0.117647	0.266667	0.052632	0.02	0.245098	0.181102	0.333333	0.125	0.333333	-0.2	0.208333	0
44 WBHO	9.9	0	0.046512	0	-0.111111	0.16875	0	0.117647	-0.105263	-0.058824	0	0.05	0	0
45 PROFURN	10.324	1	0	-0.35	0	-0.076923	0	0	0	-0.166667	0	0	0.5	0
46 SPESCOM	10.49294	0.217391	0.107143	-0.16129	-0.076923	0.166667	-0.121429	0.083333	-0.269231	-0.105263	0.294118	0.090909	-0.2375	0
47 LITECH	10.769	0.111111	0.04	-0.15	0.023529	0.091954	0.157895	0.045455	-0.130435	0	-0.1	0.011111	0.25	0
48 YORKCOR	10.9989	0	-0.2	0.2	0	0	0	0	0	0	0	-0.166667	0.2	0
49 VALAUTO	11.22	-0.393939	0	0	0	0	0	0	0	0	0	-0.25	0	0
50 EUREKA	11.4	0.1	0.967273	-0.277264	-0.040921	-0.002667	0	0.047486	0.221333	-0.091703	0	0.259615	0.498	0
51 DON	11.7875	-0.108108	-0.060606	0	-0.096774	0.071429	0	0	0.02	0.166667	0.028571	0	0	0
52 SMGHOLD	12.39375	0	-0.133333	0.230769	0	0.04375	0	-0.375	0.2	0	0.133333	-0.046154	-0.064516	0
53 SASFIN	12.4366	0	0	-0.045455	-0.047619	0	-0.05	0.052632	0.05	0.047619	0.077273	0	-0.090909	0
54 CMH	12.54	0.083333	0	0	0	0.195385	0.428571	0.1	0.090909	-0.083333	0	-0.072727	0.2	0
55 FORIM	12.798	0	0	0	0	0	0	0.111111	0.166667	0.285714	0	0.333333	-0.05	0
56 VALCAR	13.2	0	0	0	-0.16	0	0	0	0	-0.047619	0.25	-0.2	0	0
57 GEN-OPTIC	13.775	0	0.030928	0	0.06	-0.047619	-0.08	0	0	0.195652	0	0.127273	0	0
58 GLOPVT	13.98	0.466667	0.045455	-0.021739	0.111111	0.2	0.033333	-0.083333	-0.018182	-0.074074	0.2	-0.073333	0.018519	0
59 JASCO	14.16541	0	0.184211	0.111111	0.5	0.056	0.133333	-0.058824	0.0625	0.352941	-0.043478	0.136364	0.2	0
60 NEIHL	14.43528	0	0	0	-0.090909	-0.05	-0.052632	-0.055556	-0.117647	0	0	0	0.066667	0
61 TOLARAM	15.1875	0	0	0	0	0	0	0	0	0	0	0	0	0
62 MARSHALLS	15.65415	0.2	0.001	0.006944	0	0	0	0.039655	-0.206897	0	0	0	0	0
63 SONDOR	16.8	0	0	0	0.2	0	0	-0.125	0.1	0.090909	0	0.041667	0	0
64 RENTSUR	16.85625	0	0	0	0	-0.058824	-0.21875	0	0	0	0	-0.2	-0.05	0
65 CONTROL	16.9235	0.2	0.6	0	-0.166667	0.125	0.333333	0.216667	0.123288	0.025	0.097561	0.111111	0.2	0
66 NINIAN	17.44698	0.045455	0	0.036522	0	0	0	0	0	-0.052991	-0.090909	0.15	0	0
67 AF-&-OVER	17.5	0.128788	-0.241611	0.221239	0.268116	0	0	0	0.142857	0.25	0	0.052	0.068441	0
68 BOWCALF	17.5	0	0.142857	0.375	0.481818	-0.03125	-0.032258	0.033333	0.032258	0.140625	0	-0.027778	0.085714	0
69 GUBINGS	17.6697	0	0.2	0.041667	0.02	-0.025	-0.025641	0	0	-0.052632	0	0.022222	0	0
70 ANBEECO	18.7225	0.25	0.046154	0	-0.076923	-0.083333	0.272727	0.128571	-0.133333	0.030769	-0.029851	0	0.076923	0
71 CEMENCO	18.7992	0.05	0	0	0	-0.047619	-0.1	0.027778	0.081081	0	0	0	0	0
72 CNFED	19.11679	0	0	0	0.05777	0	-0.086957	0	0	0	0.010476	0	0	0
73 VESTCOR	19.5475	0	0	-0.181818	0	0	0	-0.111111	0.25	0.1	0	0	0	0
74 HARWILL	20.5422	0.028571	0.111111	0.025	0.073171	0.022727	0.044444	0.021277	0.041667	0.02	0.05	0	0	0
75 PASDEC	20.8947	0	-0.5	0	-0.333333	1	0.5	0	-0.166667	0	-0.36	0.125	0	0
76 BOLWEAR	21.4	0	-0.277108	-0.083333	0	0.145455	-0.065574	-0.035088	0.090909	0.083333	0.076923	0.428571	0.07	0
77 SABVEST	21.5229	0.26087	0.075862	-0.133333	-0.038462	-0.04	0.25	0.066667	0.090625	0	0	-0.029412	0.151515	0
78 PUTPROP	21.6685	0.142857	0.125	0.27907	-0.090909	0.1	0.136364	-0.04	-0.083333	0.045455	-0.034783	0.190476	0	0
79 NEI-AFR	21.9275	0	0	0	0	0	0.085714	0	-0.105263	-0.176471	0.107143	0.032258	-0.0625	0.083333
80 STANTRN	22.56171	0.411765	0.333333	0	0.0625	0.088235	0	-0.027027	0.388889	0.3	0.307692	0.117647	-0.157895	0
81 FASHAF	23.02575	0.25	0	-0.1	0.033333	0.182796	0	0	0	-0.318182	0.066667	0.125	0.388889	0
82 LABAT	23.2653	0.333333	0	-0.25	0	0	-0.166667	1.2	-0.181818	-0.222222	0	0	-0.428571	0
83 GOLDSTEIN	25.7871	0.3	0.038462	0	-0.038462	0.02	-0.019080	-0.16	0	-0.404762	0.064	-0.076923	0	0
84 MACMED	27.8144	0.2	-0.041667	-0.130435	-0.25	0.333333	0	-0.2	-0.0625	0.24	0	-0.247312	0	0
85 AHEALTH	29.1456	-0.1	0.033889	0.065217	-0.061224	0	0	-0.23913	0.028571	-0.069444	0.044776	0.214286	-0.058824	0
86 REX-TRUE	31.9662	-0.268156	0	0.244275	0.153374	0	0.06383	0.015	0.059113	0.162791	0			

93	CONCOR	40.61248	0.05	0.015873	0.0625	0	0	0.03125	0.060606	0	0	0.114286	0.1	0.025974
94	UNISERV	41.472	-0.208333	0.157895	0.136364	0.176	-0.071429	0	-0.076923	0.208333	0.206897	0.085714	0.026316	0.076923
95	BEARMAN	42.1245	0	0.241667	0	0	0	0	0.166667	0.049603	0.428571	0	0.025	0.097561
96	SPURHLD	42.833	0.05	0.238095	0.076923	-0.071429	0.023077	-0.030769	0.007937	0.181102	-0.066667	0.087857	0.033333	0.064516
97	UNIHLID	44.568	0.2	-0.166667	0	0	0	0.133333	0.117647	-0.105263	-0.058824	0	-0.1875	0.076923
98	S&JLAND	45.5806	-0.068966	-0.074074	0.52	-0.131579	0.212121	-0.075	0.081081	-0.1	-0.166667	0.066667	0.5625	0.18
99	CULLINAN	48.83088	-0.051724	0.090909	-0.083333	0.036364	-0.035088	0.007273	0	-0.054545	0.346154	0.071429	0.013333	0.027027
100	VENTEL	49	-0.125	-0.007619	0.105263	-0.020762	-0.263158	0.142857	-0.0625	0	0.066667	-0.5	0.125	0.111111
101	OZZ	52.04584	0.041667	0.272	0.006289	0	0	0.0625	-0.017647	-0.041916	-0.0625	0.034667	0.113333	0.178443
102	PRIMA	53.244	0.028986	0.028169	-0.117647	0.033333	-0.048387	0.050847	0.032258	0.048438	-0.095238	-0.017544	0.089286	0.147541
103	MASONITE	54.544	0	0	0	-0.25	0.016667	0.229508	-0.033333	0	0.013793	-0.034483	-0.107143	0.12
104	SPUR	55.30254	0.145833	0.272727	0	0.02381	0.01814	0.023256	-0.136364	0.184211	-0.111111	0.1165	0.068182	0.234043
105	MIDAS	57.64516	0.05	-0.047619	0	-0.2	0.25	0.075	0.27907	-0.127273	-0.25	0.472222	0	0.153846
106	GSHOLD	58.8992	0	-0.045455	-0.428571	0.083333	0	0.276923	-0.036145	0.125	-0.111111	-0.0625	1.266667	0.058824
107	METAIR	59.4825	0	0.047619	-0.045455	0.071429	0.035556	0	0.066667	0	0.25	0.066667	0	0.0625
108	CFC	60.1152	-0.016393	0.041667	-0.008	-0.033871	0.094017	-0.046875	-0.016393	0.041667	-0.12	0.014545	0	0.181818
109	FURNCAP	62.72238	-0.043478	-0.090909	-0.05	-0.052632	0	0	0	-0.111111	0.0625	0	0.117647	0.447368
110	BRAIT	63.63	-0.028571	-0.085076	0	0.166667	-0.085714	0	0.25	0	-0.15	0	0.014706	-0.007246
111	ITLILE	63.72605	-0.0625	0.033333	0.066667	-0.0625	0	0.033333	-0.032258	0.2	0.016667	0	-0.027778	0
112	FRAME	64.12044	-0.214286	0.090909	-0.083333	-0.090909	0.06	0.320755	-0.214286	0.363636	0.2	-0.111111	0.5625	0
113	TOCO	65.0064	0.153846	0	0.037037	0.071429	-0.033333	0.137931	-0.060606	-0.032258	-0.1	0.148148	0.129032	0.085714
114	CAPTALL	65.74317	0.192308	-0.032258	0	0	0	0	0.004	-0.051724	0	0.090909	0.05	0.067937
115	PUTCO	65.79825	-0.115385	0.256522	0.074074	-0.034483	0.142857	0.09375	0.071429	0	0.066667	-0.0975	0.029412	0
116	SEARDEL	65.81863	-0.14	0.069767	-0.173913	-0.052632	0	-0.057143	0.151515	0.447368	-0.036364	-0.075472	0.22449	0.2875
117	CROOKES	69	0.055556	0	-0.052632	0	-0.055556	0.055294	0.091954	-0.052632	0	0	0.055556	0.489474
118	ATLAS	74.7612	-0.038961	0.135135	0.047619	-0.045455	-0.047619	0.07035	0	0	-0.1	0.041667	0.013333	0.129079
119	RELYANT	75.89864	0	-0.1	-0.133333	-0.128205	-0.029412	0.484848	-0.132653	0.058824	-0.055556	0.011765	-0.186047	0.228571
120	COATES	82.02376	0.041667	0.064	0.000752	0.019231	0.132075	0.268667	-0.078947	0	0.006286	-0.014286	-0.02029	-0.088047
121	IPROP	82.60398	0.09375	0.071429	0.166667	-0.028571	0.247059	0.067961	0.022727	-0.022222	-0.045455	0.047619	0.177273	0.22449
122	GOLDFREE	83.88018	0.125	-0.111111	0	-0.05	0.052632	0	0.0145	-0.25	-0.1	0	-0.111111	0
123	SABLE	86.112	-0.145833	-0.121951	0	0	-0.111111	0	0.03125	0.090909	-0.055556	0.058824	0.222222	0
124	CASHBIL	88.596	0.343284	-0.055556	0.058824	-0.166667	0.082667	0.075	0.116279	-0.104167	0	0.096767	0.206522	0.272727
125	MR PRICE	94.71	0.285714	0.111111	0	0	0.0215	0.1	0.090909	0.083333	0.153846	0.141	0	0.117647
126	OXBRIDGE	95.49358	0.276596	0	0	0	-0.068333	0	0	0	-0.090909	0	-0.16	0.202381
127	HCI	98.9016	0.02	-0.019608	-0.15	-0.176471	0.214286	0.529412	-0.153846	-0.181818	-0.555556	-0.5	0	-0.45
128	PERSBEL	100.55496	-0.013158	0	0.106667	0.060624	0.024096	-0.035294	0	-0.207317	0.046154	0.046765	-0.014286	0.043478
129	GROUP-5	104.6985	0.315759	-0.04	-0.375	-0.066667	0	0.185714	0.084337	-0.022222	-0.034091	0.058824	0.888889	0.088235
130	GROPPROP	107.2	-0.035714	0.037037	-0.035714	0.037407	0.076923	-0.035714	0.111111	0.033333	0	0.000323	0.068966	0.016129
131	SAAMBOU	113.841	0.142857	0.1	0.056818	-0.032258	0.177778	-0.103774	-0.032258	-0.033333	-0.011494	0.104651	0.210526	-0.121739
132	S&SHOLD	115.06	0	-0.029412	0.0625	-0.117647	-0.066667	0	-0.071429	0.253846	-0.025974	0.2	0.388889	0.36
133	ROMATEX	119.25	0.036145	0.22093	0.095238	0.043478	0.021667	0	-0.041667	0	0.086957	0.04	0.446154	0.222222
134	BOUMAT	124.216	0.125	0	-0.044444	-0.011628	0.058824	0.755556	-0.16129	0.057692	-0.090909	0.04	0.115385	0.086207
135	JDGROU	124.47085	0.071429	0.4	0.142857	-0.02	-0.017544	0	0.071429	0.083333	-0.076923	0.006667	-0.125	0.619048
136	FASIC	124.7895	0.147541	-0.028571	0	-0.117647	0.279167	0.013333	0.052632	-0.125	0	0.428571	0.0823	0.056075
137	KH-PROPS	130.75212	0.030612	-0.009901	0.02	-0.068627	-0.018947	-0.022727	0.162791	0.02	-0.039216	0	-0.008163	-0.043478
138	GRINDROD	132.63992	0.162162	0.172093	-0.028926	-0.097872	0.061321	0.022222	0.021739	0.06383	-0.078	0.053333	0.054852	0.04
139	OCTODEC	133.6552	-0.033333	0	0.034483	0.033333	-0.103448	0.038462	0.111111	-0.033333	0	0.070345	0	0.068966
140	MCCARTHY	144.71597	0.096774	-0.117647	-0.106667	0	0.038462	-0.037037	0	0	0.311538	-0.015152	0.061538	0.449275
141	OCEANA	156.41136	0.076923	0.02381	-0.069767	0.25	-0.008	0.145968	-0.035714	-0.018519	-0.007547	-0.011407	0.038462	0.016296
142	TELJOY	159.478	-0.102041	0.136364	0.04	-0.076923	0.041667	-0.024	-0.042553	0.044444	-0.021277	0.086957	0	0.258
143	MEDCLIN	164.6316	0.25	0.1	-0.127273	-0.125	-0.047619	-0.003	0.025641	-0.1	-0.166667	0.033333	0.129032	0.012571
144	AFUFE	169.14078	0.15	-0.021739	0.088889	0.071429	-0.002286	-0.029126	-0.1	0	-0.111111	0.175	0.015745	-0.021277
145	FINTECH	171.38496	0.047619	0.215686	-0.129032	0.055556	0.035714	-0.068966	-0.074074	0.12	-0.142857	0.05	0.269841	0
146	KTL	176.84194	0.179245	0.08	-0.064815	0.048	0.09542	-0.041812	-0.072727	0	0.103922	0.018182	0.292857	0.276243
147	CHEMSERVE	185.26138	0.066667	0.078125	0.097681	0.040541	0.025974	0.088608	0.081395	-0.030108	-0.011236	0.011364	0.045977	0.021978
148	ELBGROUP	188.53107	0.176471	-0.01675	0.102564	-0.023256	0.02381	-0.046512	-0.073171	-0.010526	-0.015957	0.052703	0	0.157895
149	RMSPROP	188.7935	0	-0.0625	0	-0.04	-0.064861	0.225806	0.026316	0	-0.102564	0	0.011543	0.151515
150	ALEXND	189.2319	-0.041667	-0.130435	0	-0.143145	-0.176471	-0.071429	-0.046154	0.008065	0.0352	0.08	0.037037	0
151	LENCO	192.2622	0.287671	0.06383	-0.002	0.072165	0.201923	0	0	0.016	0.023622	0.076923	0.142857	0.25
152	CTP	196.66161	0.040353	0.090909	0.027778	0.027027	0	0	0.078947	0.097561	-0.022222	0.090909	0.166667	0
153	CONSHU	197.6505	0.166667	0	-0.042857	0	0	-0.076923	-0.083333	0.136364	0.004	0.041667	0.2	0
154	DIDATA	199.09602	-0.030612	0.181053	0.072727	-0.127119	0.097087	-0.070796	0.142857	0.083333	-0.038462	0.12	0.158571	0
155	CLINICS	201.96	0.288462	0.208955	0.012346	-0.02439	-0.0625	-0.262667	-0.074074	-0.12	-0.045455	0	0.047619	0.202273
156	HYPROP	211.209	0	0	-0.006348	0	-0.038462	0	0.056	0.030864	-0.038462	-0.04	0	0.041667
157	OMNIA	211.26925	0.019608	0.08	0.019231	-0.056604	0.04	0	-0.086538	0.094737	0.009615	0.142857	0.25	0.029333
158	APEX	216.59628	0	0	0.019231	0	-0.072377	0.021739	0.042553	0	0.020408	-0.08	-0.021739	0.309524
159	GRINTEK	231.15988	0.333333	-0.15	-0.14	0	-0.068966	-0.037037	0	0	0.096154	-0.071429	0.038462	0
160	SHOPRIT	241.74732							-0.088235	-0.16129	0	0	0.130769	0.102041
161	YABENG	256.8258	-0.081081	-0.044118	-0.123077	-0.017544	0.09375	0.087719	-0.032258	0.033333	0.048387	0.138462	0.054054	0.076923
162	BIDVEST	262.64	0.208333	0.103103	0.142857	0.020833	0	0.076463	0.025641	0.0875	-0.022989	0.047059	0.073034	0.099476
163	SFW	271.6	0.428571	-0.071667	-0.181818	-0.066667	0.047619	0.045455	0.043478	0.041667	-0.086	0.363636	0	0
164	METKOR	277.1132	-0.0625	0.4	-0.119048	-0.027027	-0.111111	0.158813	-0.166667	0	-0.166667	-0.12	0.681818	-0.169676
165	CBDFUND	277.25326	0.071429	-0.044444	0.209302	-0.230769	0.0595	0	0.128205	-0.022727	-0.069767	0.05	0.017905	0.15
166	INHOLD	285.4												

186 SANTAM	426.28398	0.093333	0.109756	0.043956	-0.105263	0.235294	0.019048	0	-0.014286	-0.082126	0.052632	0.07	0.056075
187 SYCOM	442.30428	-0.059259	0.007874	0.039063	-0.022556	-0.062338	0.069565	-0.00813	-0.016393	-0.016667	-0.067797	0.056836	0.072727
188 CENPROP	452.87007	-0.018182	-0.06737	0.104167	-0.09434	-0.083333	0.022727	0.044444	0.115021	0	-0.12	-0.045455	0.309524
189 BATSA	466.803	0.072632	0.042689	0.176471	-0.0303	0	0	0	-0.015579	-0.012831	-0.005275	0.071586	0.030928
190 TEMPORA	469.1858	0.194805	-0.043478	-0.095	-0.025641	0	0.052632	-0.1125	0.070423	-0.105263	0.044118	0.070423	0.052632
191 CGU	470	0	0.276596	0.191667	0.075	0.049834	0.088608	0.011628	0.055172	0.038462	-0.026455	-0.005435	-0.016393
192 SA-EAGLE	489.91229	0.025	0.297561	-0.038462	-0.1	0.111111	0.02	-0.019608	-0.004	-0.030612	0.10526	0.072917	0.029126
193 METCASH	490.39178	0.12	-0.053571	0.132075	0.016667	0.04918	0.03125	-0.025758	0.055118	-0.074627	0.129032	0.057143	0.226351
194 TMX	503.9496	0.5	-0.222222	0.321429	0.112346	0.02439	-0.071429	0.015385	0.262626	0.02	-0.215686	-0.025	0
195 POWTECH	516.51763	0.010989	0.043478	0.010417	-0.010309	-0.105833	0.02381	-0.093023	-0.051282	-0.027027	-0.013889	0.183099	0.130952
196 INVSTEC	541.24329	0.076923	-0.017857	0.018182	0.008929	0.187611	-0.030303	0	0.03125	-0.030303	0.0625	0.130882	0
197 ILLOVO	553.49892	-0.028571	0.058824	0.013889	-0.041096	-0.094286	-0.080645	0	-0.052632	0.037037	0.214286	0.176471	-0.0325
198 NUCLICKS	563.87	0.077739	0.016393	-0.03871	-0.026846	-0.017241	0.140351	0.017538	0.006098	-0.075758	0.229508	0.026667	-0.085974
199 DORBYL	587.75898	0.017857	0.052632	-0.05	-0.140351	-0.102041	0.086364	0.106383	-0.019231	-0.098039	-0.130435	0.25	0.212
200 VENTRON	590.51832	0.037037	0.071429	0	0	0.037667	-0.016393	0.066667	0.015625	0	-0.046154	-0.032258	0
201 DELCORP	601.0958	0.046512	-0.011111	-0.02809	-0.040462	-0.096386	0.133333	-0.149294	0.013986	-0.172414	0.125	-0.037037	0.230769
202 DALYS	632.8	0.140339	0.037779	-0.102887	-0.044211	-0.021299	0.108595	-0.156851	-0.058561	-0.011741	0.010768	0.086957	0.057907
203 REUNERT	666.015	0.052632	0.057143	0	0.054054	0.051282	-0.016341	-0.0125	0.012658	-0.0125	0.21519	0.201417	0.26087
204 SA-DRUG	735.11748	0.238095	0.038462	-0.111111	0.051563	0.02	0.078431	-0.054545	0	0	0.009615	-0.018	-0.019608
205 HVELD	771.24912	-0.011299	0.314286	-0.086957	0.073171	-0.022727	0.139535	0.061224	0.019231	0.015094	-0.056604	0.08	0.240741
206 TOYOTA	785.29908	0.108108	0.121951	0.012391	-0.021739	-0.066667	-0.02381	-0.146341	0.085714	-0.078947	-0.114286	0.16129	0.166667
207 DELFOOD	821.32647	0.079545	-0.042105	-0.076923	0.029762	-0.017341	0.058824	-0.185556	0.048276	-0.144737	0.115385	-0.034483	0.25
208 PLATE-GL	842.37808	0.071429	0	-0.066667	-0.005952	0.149701	0.413542	-0.059701	-0.015873	0.177419	-0.013699	0.180556	0.186471
209 PIKWIK	888.116	0.118644	-0.015152	-0.024615	-0.11205	0	-0.047273	-0.019084	0.038911	-0.018727	0.164122	-0.091672	0.098182
210 AECI	922.25	0.105263	0.269841	0.1875	0.098901	0.125	0	0.066667	0.019167	-0.024896	0.212766	0.192982	0.029412
211 FELDURE	927.211	0	0.086957	-0.0228	0.020833	0.102041	-0.074074	-0.04	-0.020833	0.100638	-0.039216	-0.020408	0.083333
212 ALTRON	1046.67368	0	0.066667	0.0375	-0.006024	0.014545	0.04878	-0.002326	0.025641	0	-0.090909	-0.0625	0.04
213 METLIFE	1091.637	0.073171	0.090909	0	-0.0625	-0.022222	0.010909	-0.081818	0.039604	-0.047619	0.035	0.072464	0.258108
214 MOBILE	1101.33529	0.012821	-0.039662	-0.066225	0.106383	-0.051282	0.054054	0	0	-0.087607	-0.092199	0.03125	0.045455
215 DISTELL	1101.8	0.233333	-0.014054	-0.027778	-0.028571	-0.147059	0.089655	-0.012658	-0.038462	0.001333	-0.027778	0.035714	0.034483
216 ALTECH	1106.06133	0	-0.035714	-0.022222	-0.05303	-0.04	-0.125	0.028571	0.046296	-0.044248	-0.194444	0.034483	0.038889
217 JOHNCOM	1137.10344	0.047619	-0.018182	0.055556	0.017544	0	-0.034483	0.014286	-0.035714	-0.037037	-0.038462	0.2	0.005
218 LANGEBOG	1212.8	0	-0.083333	-0.106061	-0.101695	0.09434	-0.06087	-0.083333	-0.070707	-0.01087	0.098901	-0.02	0.079592
219 I-J	1303.61621	0.03871	-0.120083	-0.082353	0.07692	-0.13486	0.058824	0	0.027778	-0.152432	-0.081967	0.178571	0.212121
220 ABI	1469.16	0.04878	-0.11628	-0.105882	-0.026316	0.027027	0.015526	-0.018421	-0.021448	-0.054795	0.043478	0.152778	0.040578
221 LIBVEST	1479.04588	0.069767	0.059043	-0.042553	-0.088889	0.156098	0.075949	0.012376	0.061224	-0.029231	-0.04	0.083333	0.076923
222 FOSCHINI	1610.2125	0.075472	-0.025965	0	0.036023	0.017385	0.305995	-0.12	0.02303	-0.081754	0.040645	0.16243	0.013333
223 PICKNPAY	1615.329	0.125313	-0.037862	0.020833	-0.093537	-0.043478	-0.02139	0	0	-0.068306	0.281525	-0.09897	0.092072
224 CADSWEP	1672.10704	0.141414	0.044248	-0.033729	-0.115044	0.01	0.09901	-0.099099	-0.026	-0.154415	0.097561	0.088889	0.040816
225 PPC	1681.64997	0.032468	0.031447	-0.02439	-0.03125	0	0.071895	-0.04878	0.134615	0.028249	0.010989	0.108696	0.404902
226 M-F	1687.5	0.164384	0.105882	-0.12766	0.007317	0.04878	0.081395	0	-0.010753	-0.096304	0.036585	0.058824	0.022222
227 ADCOCK	1700.27256	0.142857	0	0.05	0.047619	0.0275	0.011111	-0.044944	-0.058824	0	0	0.011625	-0.046875
228 RAINBOW	1702.47	-0.145455	-0.212766	0.243243	-0.130435	0.375	0.054545	0.068966	0.016129	-0.285714	-0.088889	0.292683	0.245283
229 TONGAAT	1777.545	-0.027778	0.085714	0.078947	0.02439	0.02381	0.093023	-0.06383	0	-0.023256	0.119048	0.117021	0.142857
230 PEKOR	1782.072	0.210526	0	-0.043478	0.030303	-0.058824	0	0	-0.171875	-0.09434	0.083333	0.192308	0.032258
231 FIT	1851.681	-0.022727	-0.013953	0.09717	0.043478	-0.0125	0.139241	0	0.037037	-0.012857	0	0	0.090909
232 TRENCOR	2124.28509	0	0.002128	-0.066667	-0.042857	0.059701	0.070423	-0.026316	0.054054	-0.081795	-0.098592	0.078125	0.043478
233 WOOLTRU	2177.36176	0.18	0.042373	-0.01187	0	0.075	-0.023256	0.020635	0.275272	0.075976	-0.011494	0.145349	0.167513
234 TIB	2353.56	-0.014493	-0.0352	-0.015385	0	0.06875	-0.005848	0	-0.014706	0.027899	-0.029412	0.090909	0.055556
235 HLH	2515.53192	-0.055556	-0.058824	0.13125	-0.005525	0.231111	0.090909	-0.041667	0.021739	-0.191489	0.026316	0.295897	0.32
236 EDCON	2549.03088	0.223214	-0.007299	-0.018382	-0.011236	0.144242	0.060403	-0.025316	0.038961	0.0375	0.024096	0.028824	0.149425
237 GENBEL	2695.68	0.039216	0.028302	0.009434	0.261682	-0.037037	0.030769	0.055556	-0.045113	-0.124409	0.018992	0.06422	0.103448
238 AFROX	2773.41906	0.060606	-0.019048	-0.019417	-0.074257	0.005348	0.093617	-0.088627	-0.031579	-0.038043	-0.00565	0.083523	0.06383
239 ISCOR	2803.35	0.274194	-0.037975	0.078947	0.375	-0.027273	0.261682	0.066667	0	-0.076389	0.2	0.141026	0.370787
240 TEGKOR	2885.08	-0.016129	-0.16852	0.020202	0.023102	0.048387	0	0	-0.015385	-0.002819	0.015873	0.0625	0.088235
241 NEDCOR	3024.46	-0.050505	-0.010638	-0.075269	0.162791	0.05	0.096154	-0.052632	-0.027778	0.009524	0.066038	0.080354	0.091667
242 PREM-GRP	3075.094	0.02	-0.039216	-0.040816	0.021277	0	0.125	-0.026296	0.076923	0.071429	-0.033333	-0.051724	0.189091
243 KERSAF	3390.3995	-0.090909	0.005	0.000332	0.084746	0.125	0.041667	0.093333	0.012195	0.043614	0.011765	0.162791	-0.08
244 M&R-HLD	3532.825	-0.018868	0.067308	0.019099	-0.107143	-0.08	0.054348	-0.092784	0.113636	-0.052245	0.138889	0.15122	0.110169
245 MALBAK	3581.76042	0.068966	0.032258	-0.03125	-0.016129	-0.07377	0.071429	-0.016667	-0.016949	-0.12069	0.333333	0.013235	0.147059
246 NAMPAK	3715.9992	0.079545	-0.026316	0.010811	-0.026738	0.027473	0.089519	-0.009901	-0.04	-0.03125	0.010753	0.085213	0.094527
247 CGS-FOOD	4269.51	0.037736	-0.054545	-0.038462	-0.02	-0.091837	-0.04809	0.035714	0.057471	-0.048913	-0.045714	0.077844	0.175111
248 A-VI	4446.03633	0	-0.13125	0.143885	-0.069182	0.013514	-0.083333	0.090909	-0.006667	0.053356	0.045161	0.061728	0.162791
249 ABSA	4630.59324	0.053892	0.022727	-0.016667	-0.039548	0.123529	0.022513	0.084211	-0.048544	-0.071429	-0.010989	-0.077778	0.086747
250 BEVCON	4828	0.027778	0	0	-0.054054	0.028571	0.150617	-0.01227	0.024845	0.054545	-0.022989	0.094118	0.295839
251 SISA	4887.84391	-0.097345	0.119373	0	-0.071429	-0.057692	0.020408	0.11	0.01182	-0.090909	0.08	0.074074	0.034483
252 SAPPI	4968.5075	-0.106061	0	-0.177966	0.237113	0.026667	0.083333	-0.153846	-0.054545	-0.173077	-0.05814	0.047674	0.37931
253 SAFREN	5324.75361	0.039088	-0.107628	-0.075527	-0.040868	-0.01731	-0.01084	0.034247	0.021192	-0.036316	-0.040055	0.146703	0.122961
254 CGSMITH	5549.90258	0.048148	-0.010601	-0.057143	-0.05303	0	0.03336	-0.015625	0.055556	-0.06391	-0.02008	0.147541	0.122143
255 TIGBRANDS	6435.77301	0.06044	-0.005181	-0.145833	0.012195	0.024096	0.000706	-0.005917	-0.113095	0.073826	0	0.1625	0.129892
256 LIB-HOLD	6												

	93MC	1994JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES	
1 INDFIN	0.2	0	0	0.111111	0	0	0	0.2	1.5	-0.1	-0.185185	0	0.181818	-0.153846
2 SAIL	0.3212	0	0	0	0	0	0	0	0	0	0	0	0	0
3 WESCAP	0.54552	0	0	0	0	1.75	0.181818	0	0	0	0	0	0	0
4 COASTAL	0.55915	0	0	0	0	0	0	0	0	0	0	0	0	0
5 SPICER	1.2	0.142857	0.75	0	-0.285714	0	0.3	1.461538	0.71875	0.181818	-0.153846	0.090909	0.25	0
6 CAPSTAR	1.32795	0	0	0	0	0	0	0	0	4.833333	-0.142857	0.166667	-0.057143	0
7 NICTUS	1.425	0.428571	-0.5	1	0.04	0	0.1	0.636364	0.111111	-0.1	0.166667	0.066667	0	0
8 AUTOQIP	2.189	0	0	0	0.166667	0.142857	0.25	0	-0.1	0.155556	0.442308	-0.066667	0.071429	0
9 ADONIS	2.2688	-0.142857	0.083333	0.076923	0	0	0.142857	0.0625	0.058824	0.111111	0	-0.1	0	0
10 CORWIL	2.4167	0.818182	0.25	-0.133333	0.018462	0	0.384615	0.111111	0.012	0.1	0	0.272727	0	0
11 PALS	2.5	0	0	0	0.056	0.2	0.666667	-0.1	0.333333	0.166667	0.1	0.133333	0.058824	0
12 STRAND	2.64	0	0	0	0	0	0	-0.181818	-0.533333	0.428571	-0.066667	0.142857	0	0
13 LA-GROUP	2.7918	0.071429	0.111111	0	0	0.2	0.033333	0.129032	-0.114286	0	-0.064516	-0.189655	0	0
14 PASDEC	2.94984	0.5	0.222222	0.212121	0.25	0	0.4	0.071429	0.066667	0.125	-0.222222	0	0.142857	0
15 BATEPRO	3.021	0	-0.2	0	0	0.375	0	0.090909	0	0	0	0.333333	0.075	0
16 SAMRAND	3.1044	0.545455	0.058824	-0.166667	0	0.04	0.025641	0.025641	0	0	0	0	0	0
17 TRNPACO	3.3	-0.045455	-0.047619	0	0	0	0	0	0	0	0	0	0	0
18 VALAUTO	3.3	0.333333	0	0	0.75	0	0.285714	0	-0.333333	0	0	0	0	0
19 OAKFLDS	3.4	-0.2	0	0.675	0	-0.253731	0	0.2	0.116667	0.268657	0.117647	1.368421	0	0
20 VALCAR	4.125	0	0	0	0.5	0	0.166667	0	0	0	0	0	0	0
21 JIGSAW	4.284	0	0	0	-0.2	0	0.75	-0.228571	-0.074074	0.4	0	0.142857	0.375	0
22 PSG	4.58178	0	0	0	0.363636	0.5	-0.111111	-0.25	0.166667	2.142857	0	0	0	0
23 LABAT	4.65306	-0.25	0.166667	0.214286	0	-0.117647	0.066667	0.875	0.066667	0	0.125	-0.055556	-0.235294	0
24 SPANJAARD	4.674	0	0	0	-0.083333	0	-0.090909	0.4	0	0	0	0	-0.285714	0
25 BRANDCO	4.675	0	0	0	0	0	0	0.125	0.111111	0	0	0	0	0
26 SUPRGRP	4.8384	0.071429	-0.222222	-0.085714	0.40625	0.666667	0.266667	-0.105263	0.705882	-0.103448	0	0	0	0
27 SHOREDITS	4.84695	0	0.076923	0.428571	0.1	1.045455	0.022222	0	0.034783	0.021739	0.06383	0.04	0	0
28 PACIFIC	4.8741	0.111111	0.026667	0.1	0.030303	0.323529	0.222222	0.014545	-0.381818	0	0.058824	0.111111	-0.05	0
29 WINBEL	5.2111	-0.25	0	0	0	1	-0.166667	0	0.4	-0.285714	-0.08	0.086957	0.12	0
30 INMINS	5.308	1	0	0	-0.333333	1.25	0.222222	-0.181818	0.666667	-0.133333	0	-0.076923	0	0
31 WINHOLD	5.80392	0	-0.25	0	0	1.333333	-0.142857	-0.166667	0.4	-0.285714	0	0.2	-0.133333	0
32 COMPASS	6.16	0.007752	-0.153846	-0.090909	0	0	0.25	0	0.083333	0	0	-0.2	0.3	0
33 ADCORP	6.699	0	0	0	0	0	0	0.428571	0	0.3	-0.153846	0.090909	0.125	0
34 GLODINA	7.01136	0.375	0	0	0.090909	1	0.083333	-0.153846	0	-0.181818	0	0	0.111111	0
35 ADVANCED	7.13125	0	0	0	0	0.052632	0.5	0	-0.166667	-0.2	0	0	0	0
36 CLYDE	7.44	0.181818	-0.030769	0.031746	0	0.415385	0.111111	0	-0.05	0	0.105263	-0.035714	-0.05	0
37 WBHO	8.01	0.5	0.166667	0.178571	0	0.445455	-0.043478	-0.136364	-0.052632	-0.027778	-0.142857	0.026667	0	0
38 GOLDSTEIN	8.1959	-0.083333	-0.090909	0	-0.1	-0.222222	0.285714	-0.111111	0.375	0	-0.090909	0.5	0.033333	0
39 VESTCOR	8.6009	0	0.545455	0	0	0	0	0.294118	0.045455	0.086957	0.3	0.415385	-0.065217	0
40 ADVSOURCE	9.01152	0	0.090909	0	0.166667	-0.071429	0	-0.015385	0.015625	-0.153846	0	0.218182	0.028358	0
41 RENTSUR	9.0625	0.052632	0.05	0.333333	-0.107143	0	0	0	-0.12	-0.090909	0	0	0	0
42 RETCORP	9.315	-0.333333	0.5	-0.2	-0.166667	0.9	-0.210526	0.133333	0.176471	-0.05	0.315789	-0.08	0.565217	0
43 BASREAD	9.43866	-0.090909	0	0.1	0.181818	0.230769	-0.15625	0.148148	-0.096774	-0.178571	0.130435	-0.115385	0.086957	0
44 ANBECCO	9.58592	0.071429	0.026667	0	-0.066667	0.071429	0.266667	0.178947	-0.090909	-0.1	0.166667	-0.047619	0	0
45 HICORL	9.72	-0.1	-0.055556	0.470588	-0.2	0.25	0	0.08	0.296296	-0.142857	0.266667	-0.026316	0.027027	0
46 ALEXWYT	9.7428	0.230769	-0.125	0	0.214286	-0.117647	0.133333	-0.058824	-0.0625	0.333333	0.05	0.142857	0.041667	0
47 SERVST	10.0485	0	0	-0.055556	0	0.294118	0.499909	-0.0625	0	-0.066667	0	-0.071429	0	0
48 RLSPROPS	10.07335	0	1.5	0.02896	0	-0.28	-0.444444	0.3	0.076923	0.428571	0.1948	-0.045455	0.047619	0
49 NEIHOLD	10.09133	0.25	0.375	0	0	0.090909	0.333333	0	0	0.0375	0	0.060241	0.477273	0
50 SASFIN	10.28846	0.1	0.090909	0.125	0	0.037037	-0.107143	0.2	0.033333	-0.032258	0.2	0.470588	0	0
51 YORKCOR	10.59894	0	0.166667	0.25	0	-0.085714	0	0	0	0	0.09375	0.285714	0.022222	0
52 BOLWEAR	10.6	0.047619	0	0.045455	0	0.173913	0.214815	0.0625	0	-0.058824	-0.125	-0.035714	0.055556	0
53 FORIM	11.31435	0.052632	0	-0.166667	0	0.2	0.033333	0	0.25	0.066667	0	-0.25	0	0
54 SMGHOLD	11.40225	0	0.034483	0	0	0.725	0	-0.1	0	-0.055556	0.023529	0.071839	0	0
55 SONDOR	12	0.166667	0	0.285714	0.111111	0.25	0	-0.02	-0.291667	0	0.082353	0.222826	0.090909	0
56 CMH	12.16	0.25	0	0.033333	0	0.064516	0.548387	0	0.104167	0.27907	0.090909	0.176667	-0.057143	0
57 GEN-OPTIC	12.64545	0.166667	0	0	0.027886	0	0	0	0.071429	0	0	-0.266667	0	0
58 JASCO	13.58723	0	-0.033333	0.034483	0.4	0.219048	-0.12	0.363636	-0.05	0.017544	-0.068966	0.018519	0.090909	0
59 MARSHALLS	13.95525	0.304348	0.241667	-0.111111	0	0.03125	-0.060606	0.225806	0.085526	0.125	-0.022222	-0.090909	-0.125	0
60 TOLARAM	15.4125	-0.166667	0	0	0	0	0	0	0.2	0.2	-0.027778	0.028571	0	0
61 CARGO	16	0.0625	-0.070588	-0.050633	0.333333	0.35	-0.050926	-0.04	-0.125	0.071429	0.009778	-0.066667	-0.02381	0
62 G5HOLD	16.79584	0.083333	0.25641	0.142857	0.160714	0.615385	-0.161905	0.079545	-0.210526	0.28	0.136842	0.12963	0.06574	0
63 DON	16.81	0	-0.083333	-0.090909	-0.033333	0	0.241379	0.111111	0.052632	0.1	0.363636	-0.066667	-0.053571	0
64 AF-&OVER	17.5	0	0	0	0.140684	0.043333	0.239617	0	0.064433	0	0	0.048426	0	0
65 ARIES	17.6	0	0.040909	0	0	0	0	0	0.018182	0	0	0	0	0
66 CONFED	17.71924	0	0	0	0.041905	0.071429	0	0	0	0.133333	0.010196	0	-0.019608	0
67 CEMENCO	17.81448	0.25	0.2	0.083333	0	0	0	-0.076923	-0.05	0.017544	0	0.275862	0.081081	0
68 NINIAN	18.25173	0	-0.078261	0.6	-0.125	0	0	0	0.142857	0.08	0	-0.029412	0.090909	0
69 GUBINGS	19.2945	-0.277778	0.076923	0.714286	0	0	0.25	0.12	0	0.107143	0.032258	0.01875	0.25	0
70 NEI-AFR	19.48415	0.307692	0.588235	-0.148148	-0.113043	0.27451	0.038462	0	0.2	0.024691	0.204819	0.25	0	0
71 WBHOLD	20.962	0.111111	-0.2	0	0.1	0.136364	0.28	0.25	0.025	-0.085366	0.066667	0	0.0625	0
72 LITECH	21.538	0.045455	-0.156522	0	0.030928	0.14	0	0.181818	0.153846	0	0	0.153333	0.058824	0
73 NUWORLD	21.8025	-0.038462	-0.12	0.431818	0.190476	0.2	0	0.022222	0	0.130435	0.019231	0.094906	-0.043478	0
74 LASER	22.5	-0.034483	-0.089286	0.078431	0.090909	0.25	0.146667	-0.011628	0.058824	0	0.066667	0.114583	0.168224	0
75 VENTEL	22.72275	-0.04	-0.020833	0	-0.255319	0.285714	-0.444444	0.6	-0.125	0	0	-0.285714	0.12	0
76 INVICTA	23.4945	-0.2	-0.125	0	0.171429	-0.02439	0.25	0.6	0.375	0.090909	-0.045455	0.333333	0.142857	0
77 SPESCOM	24.15356	0.222222	0.090909	-0.125	-0.047619	0.35	0.222222	0.045455	0.176471	0	0.175	0	0.361702	0
78 MORIBO	26.767	0	0	0.666667	-0.157143	0.118644	0.136364	-0.2	-0.166667	-0.1	0.666667	0.04	0	0
79 ITLTILE	27.46503	-0.028571	0.252941	0.142857	0	0.145833	0.225455	-0.183976	0.109091	-0.05	-0.017544	0.071429	0.166667	0
80 EUREKA	29.4	-0.130841	0.085763	-0.075786	0	0.498	-0.221629	0.027444	0.111853	-0.061655	-0.088447	0.014337	0.234982	0
81 PUTPROP	29.596	0.12	0.071429	0.033333	0	0.133333	0.117647	-0.078947	0.085714	-0.068421	-0.058824	0	0	0
82 SEARDEL	30.4499	0.413333	0.179245	-0.034	0	0.470588	0.142857	-0.095	0.104972	-				

93 FURNCAP	37.17651	0.309091	-0.027778	-0.042857	0.343284	0.333333	0.166667	0.321429	-0.027027	-0.323889	-0.066667	0.232143	0
94 FASHAF	37.6785	0.28	-0.03125	-0.225806	0.041667	0	0.2	0.333333	0.2	0.208333	-0.241379	0.363636	0.083333
95 CONTROL	37.90864	0.083333	0.046154	-0.111111	0.041667	0.04	0.230769	-0.125	0.008571	-0.071429	0.115385	0.172414	0.147059
96 FRAME	38.24728	0.6	0.125	-0.155556	0.578947	0.283333	0.038961	0.375	-0.272727	-0.1125	0	0.071429	0.133333
97 UNIHOLD	38.6256	0.142857	-0.375	0.6	0.125	0.333333	0	-0.041667	0.391304	-0.04375	0.2	0.111111	-0.075
98 S&SHOLD	39.225	0	0.252941	0.238095	0.153846	0.166667	-0.071429	0.323077	-0.195349	-0.117647	0.083333	0.169231	0.118421
99 CULLINAN	39.96575	0.026316	0.025641	0.13125	-0.222222	0.285714	0.055556	-0.157895	0.19125	-0.368421	0.166667	0.214286	-0.176471
100 BEARMAN	45.1824	0	0.21358	0.17757	0.031746	0.015385	0.174242	0.109677	0.302326	-0.045455	0.047619	0.136364	0.04
101 BOWCALF	47	0.105263	0	0.064286	0.136364	0.2	0	0	-0.058333	-0.017857	-0.018182	0.037037	-0.017857
102 MASONITE	47.24874	0.142857	0	0.21875	0.078947	0.609756	-0.015152	-0.015385	0	-0.18	-0.153846	0.090909	0
103 HARWILL	50.525	0	-0.028571	-0.019608	0	0.04	0.061538	0	0	-0.261775	-0.0625	-0.2	-0.083333
104 FRANSAF	50.57294	-0.035714	0	0	0	0	0.02963	-0.037037	0	-0.153846	0.090909	0.125	0
105 UNISERV	51.77623	0.142857	0.208333	0.12069	0.032308	0	0.076923	-0.071429	0.046154	0.176471	-0.075	0.108108	0.02439
106 GLOPVT	53.357	-0.036364	-0.056604	0	0	0.08	-0.074074	-0.104167	0	-0.232558	0.272727	-0.161905	0
107 AUTOPGE	53.87016	0	-0.03125	0.016129	0	0.377778	-0.176471	-0.142857	-0.2	-0.208333	-0.052632	-0.055556	-0.117647
108 BOUMAT	54.96558	0.111111	-0.071429	0.230769	-0.025	0.474359	0.208696	0.058394	0	-0.034483	0	0.547143	0.116279
109 CROOKES	56.4	-0.285714	0.2	0.041667	0	0	0.1576	0.091549	0.083871	-0.059524	0.012658	0.075	0.05814
110 GOLDFREEF	58.33047	0.083333	0.076923	0.178571	-0.30303	0	0	0	0	0	0	0.252174	-0.166667
111 SABLE	59.904	-0.04	0.041667	-0.05	0.052632	0.15	0.217391	0	0.071429	0	-0.098	0	0.007692
112 HCI	60.8188	-0.054545	0.057692	0	-0.090909	0	-0.2	0.25	0.4	-0.071429	0	-0.153846	-0.181818
113 CFC	61.4048	0.038462	0.118519	0.092715	0.323636	0.209302	0.076923	0	-0.010714	0.083032	0.106	0.060606	0
114 BRAIT	61.812	0.021898	-0.051274	0.15625	0.081081	0.025	0.219512	-0.06	-0.06383	0	0.022727	0	0
115 STOCKS	61.95574	0.055556	0.068421	0.2	0.333333	0.125	0	0.319444	-0.197895	-0.2	0.116667	0.19403	0.125
116 GORHOLD	64.95224	0.225	0.020408	0	0.2	0.166667	-0.071429	0.153846	-0.1	0.055556	0.052632	0.143333	-0.058824
117 ATLAS	69.64596	0.1625	-0.086022	0.058824	0	-0.033333	0.058276	0.149425	0	0.03432	-0.090909	0	0.064089
118 CAPTALL	76.743	0.015152	0.029851	-0.014493	-0.117647	0.3	0.038462	-0.045432	-0.093333	-0.132353	0.016949	0	0.021333
119 PRIMA	81.1971	-0.028571	-0.066765	0.083333	-0.076923	0	-0.083333	0.127273	-0.032258	-0.033333	0.051207	-0.034483	0.017857
120 ALHEALTH	82.39104	-0.025	-0.128205	0.029412	0.114286	0.153846	-0.096533	-0.1	0.069444	-0.012987	0.052632	0.05	-0.059524
121 METAIR	91.26315	0.058824	0	0.944444	0	0.008571	0.014706	-0.022059	-0.007519	0	-0.090909	-0.033333	0
122 S&JLAND	92.05	-0.186441	-0.083333	-0.022727	-0.093023	0.025641	0.075	0.209302	0.019231	-0.037736	-0.039216	-0.040816	0.042553
123 PUTCO	92.4875	0	-0.071429	-0.030769	0.116667	0.014925	0.264706	-0.093023	-0.102564	0.18	-0.102564	0.057143	-0.094595
124 PERSBEL	92.63988	0.180556	0.023529	0.034483	0.227778	0.136364	0	0	0.376	0	0.086967	0.006688	0
125 CASHBIL	96.086	-0.107143	-0.008	0.129032	0.021429	0.551049	0.022727	0.066667	0.125	0.074074	0.034843	0.053667	0.015873
126 QUICKCO	98.463	0	-0.25	-0.2	-0.166667	0.1	-0.090909	-0.1	0.333333	0	-0.083333	-0.363636	0.142857
127 OXBRIDGE	104.13988	0.067327	0.095238	0	0.043478	0.231667	0.232877	-0.027778	-0.085714	0.21875	-0.051282	-0.177838	0.1
128 OZZ	105.81769	0.025641	-0.075	-0.027027	0	0.166667	0.166667	0.246531	-0.066667	-0.107143	0.12	0.142857	0.084688
129 TOCO	105.89576	-0.052632	-0.027778	0	0.142857	0.2	0.25	0.066667	0.015625	0.015385	0	-0.045455	-0.047619
130 SPURHLD	107.93332	-0.060606	-0.032258	0	-0.1	0.151111	-0.046053	0	0.103448	-0.0625	0.2	-0.04	0.058824
131 COATES	109.9035	-0.015873	0.016129	0.019683	0	0.047619	0	0.030303	0	0.006471	0	-0.117647	0
132 GROPROP	112	0	0.142857	-0.027778	0.060286	0	0.028571	0.111111	0.025	0.036585	0.049882	-0.105882	-0.026316
133 SAAMBOU	113.841	-0.02	0.102041	0.018519	0.181818	0.192308	0.206452	0.081081	0.125	0.022222	0.086957	0.026	-0.058824
134 CONSHU	113.9397	0.083333	0.230769	-0.025	-0.025641	0.752632	0.076923	-0.071429	0.076923	-0.107143	-0.04	-0.063333	0.090909
135 ALEXNDR	117.0312	0.214286	0.088235	-0.124324	0.125	0.083333	0.128205	0.045455	0	0.130435	0.043846	0.056604	0.042857
136 GROWPNT	121.4208	0	0.255385	0	-0.108108	-0.015152	0.076923	0	0	0.142857	0	-0.0025	0.066667
137 MR PRICE	125.235	0.157895	0.045455	0.086957	0	0.6	0.081625	-0.186047	0.257143	-0.113636	0.058462	0.02439	0.047619
138 KH-PROPS	134.0346	0	0.136364	0.02	0.019608	0.05	0	0.19231	0.018868	-0.025926	0.05	0	0
139 BOECORP	138.34458	0	0	0	0.566265	-0.192308	-0.047619	0.25	0.04	0.153846	0.144	-0.029412	0
140 OCTODEC	140.8153	0.032258	0	-0.015625	0.047619	0.032258	0.073125	-0.090909	0.033333	0.016129	0.038095	-0.0625	0.066667
141 RMSPROP	146.66274	0.118421	0.023529	0.011494	0.022727	0.0344	0.022727	0.055556	-0.031579	0.032609	-0.031579	0.028826	-0.044444
142 METKOR	148.19532	0.2	-0.222222	0.178571	0.060606	-0.028571	-0.117647	-0.033333	0.137931	-0.060606	0.354839	0.547619	0.026923
143 TELJOY	150.7792	0.096774	0.058824	-0.083333	0	0.287879	0.150588	-0.010417	-0.052632	0.055556	-0.094737	0.116279	0.155208
144 FASIC	152.47008	-0.070796	0.066667	-0.0625	0.028571	0.245093	-0.090909	0.083333	-0.038462	-0.056	0.186441	-0.06	0
145 YABENG	155.1264	0	-0.047619	0	0.125	0.2	-0.064815	-0.1875	0.076923	-0.047619	-0.05	0.118421	0.023529
146 CITYLDG	159.35724	0.078947	0.073171	0.113636	-0.011429	0.145833	0.054545	0.068966	0.096774	-0.033529	-0.015385	0.1875	0.013158
147 ROMATEX	162.71	0.181818	0.007692	0.10687	0.103448	0.3875	0.068182	0.02439	0.02381	0.023256	0.034091	0.122198	-0.64
148 SPUR	163.2138	-0.068966	-0.074074	-0.12	0.068182	0.169787	-0.037037	-0.038462	-0.02	0.020408	0.12	-0.035	0.090226
149 IPROP	168.54314	-0.183333	0.061224	0.096154	0.263158	-0.047222	0.134328	0.052632	0	0.0375	0.012048	0.085714	0.045455
150 DNA SUP	172.80012	-0.074074	0.04	0	-0.107692	0.146552	0.181203	0.064516	0.034483	0.066667	-0.0625	0	-0.033333
151 GRINDROD	180.53676	0.153846	0.06	0.074919	-0.015152	0.230769	-0.05	-0.078947	0.142857	0.07625	-0.058824	0.025	-0.012195
152 KTL	204.10216	-0.080087	0.117647	0.216842	0.304348	0.082667	-0.092365	-0.016282	0.068966	0.141935	0.042286	-0.054825	-0.071926
153 CLINICS	208.89	0.078431	0.018182	-0.053571	0.09434	0.37931	-0.20875	-0.064516	0.068966	0.048387	0.076923	0.042857	-0.083562
154 APEX	217.41984	0.090909	-0.1	0.093481	-0.517857	0.037037	0	-0.107143	0.04	0	-0.089846	-0.151786	0.052632
155 PANPROP	227.08613	0.028571	-0.018519	-0.016981	0.061224	0.009615	0.047619	-0.054455	0.192308	-0.054032	-0.090909	0.05	0.047619
156 MEDCLIN	243.15904	-0.085714	-0.0625	0.066667	-0.09375	0.365517	-0.141162	-0.030303	0.125	0.111111	-0.05	0.026316	0.089744
157 HYPROP	245.90048	0	0	-0.034848	0.043478	0	0.05	0	0.114286	-0.014925	-0.015152	-0.015385	0.015625
158 GRINTEK	257.01852	0.185185	0	0.1025	0.085714	0.184211	0.155556	-0.076923	0.1875	-0.042105	-0.074074	0.2	-0.066667
159 AMAPROP	259.07904	0.111111	-0.041667	0.043478	0.025	0.186441	0.214286	0.035294	-0.034091	-0.176471	0	0.012857	0.014286
160 OCEANA	260.42691	0.026616	-0.037037	0	-0.019231	0.058824	0.017037	-0.037037	0	0	0.038462	0.055556	0.096491
161 CTP	268.93968	0.196429	0.014925	0.014706	0	0.014493	0	0.142857	-0.05	0.052632	0	0	0.05
162 OMNIA	281.82155	0.066667	-0.035	0.333333	0.2	-0.020833	-0.106383	0.119048	-0.06383	0.045455	-0.130435	0	-0.078
163 CBD-FUND	283.36016	0.065217	0.020408	0.08	-0.037037	0.056808	0.096154	-0.017544	-0.053571	-0.018868	-0.134615	0.039822	-0.022727
164 FINTECH	286.58448	-0.109375	-0.070175	0.018888	0.148148	0.151613	0.171429	0.121951	0.01087	0.064516	0.060606	-0.038095	-0.158416
165 AFLIFE	293.79088	0.141304	0.047619	0.045455	0.043478	0.017667	0.075	-0.031008	0.032	0.139535	-0.07619	-0.014925	-0.030303
166 ELBGROUP	295.67837	0.090909	0.048958	0.08	0.037037	0.053571	0.067797	0.079365	0.235294	0			

186	GRAYPROP	495.8478	0.054054	0.024615	0.026316	0.025641	0.05	0.047619	0	0.066818	-0.02222	0	-0.20455	0.057143
187	DUNLOP	504.76178	0.022472	0.054945	0.25625	-0.01724	0.22807	0	-0.07143	0.076923	-0.26057	0.188119	0.066667	-0.00469
188	SAGEGRP	550.4471	0.095652	0	0.015873	0.015625	0.346154	0.107429	-0.05263	0.072222	-0.04145	-0.02703	0.418667	0.132549
189	DELHOLD	561.35578	-0.11111	0.016125	-0.15625	0.037037	0.214286	0	-0.01941	-0.0303	-0.0625	-0.03333	-0.03448	0
190	ELLERINE	590.89754	0	-0.06667	0.071429	0.0778	0.358373	-0.08046	0.15	-0.05435	-0.11494	-0.0027	0.157895	-0.06818
191	BATSA	595.77525	-0.05	0	0.136842	0.178981	-0.08	-0.08696	0	-0.14286	-0.06344	-0.06024	-0.03846	0.106667
192	PSL	625.0055	0.066667	-0.0125	0.044304	0.139394	-0.01596	0.122162	0.02439	0.095238	0.086957	-0.04	0.041667	0.0072
193	GARDIAN	625.59018	0	-0.0048	0.001608	0	-0.05738	0.08087	0	-0.11475	0.020741	0	0	0.111111
194	SEAHARV	633	-0.056	0	-0.05085	-0.05357	-0.02453	0.04902	0.074766	0.043478	-0.08333	-0.09091	0	-0.096
195	SA-EAGLE	636.43536	-0.00472	-0.00474	-0.03021	-0.00503	0.050505	0.028846	-0.00935	0	0.05283	0.036364	0.017544	0
196	NUCLICKS	661.31325	-0.08571	-0.04688	-0.11475	0.185185	-0.0625	-0.1	0.136296	0	-0.13115	0.09434	-0.01724	0.147018
197	SANTAM	694.40899	-0.04545	0	-0.10952	0.122995	0	0.117143	0.021739	0.06383	-0.04	0.0625	-0.02745	0.056452
198	DALYS	715.022	-0.04353	-0.02275	0.074318	0	0	0	0.010332	0	0.045257	0.043396	0.058147	0
199	SHOPRIT	726.89848	0.018519	0.012121	0.017964	0.058824	0.297222	0.304348	-0.01667	-0.01695	-0.06897	0.111111	-0.01667	0.016949
200	LANGEBERG	731.2	-0.08654	-0.09091	0.025	0.097561	0.008889	-0.04444	0.046512	0	0.08667	-0.04762	-0.00375	0
201	POWTECH	743.71752	0	0.021053	0.082474	0.142857	0.395167	-0.06061	0.032258	0.09375	-0.06857	0.018405	0.036145	0
202	BIDVEST	749.01477	0.07619	0.101062	0.097561	0	0.074074	0.013793	0	0.371429	-0.075	-0.05405	-0.05714	0
203	VENTRON	794.54496	-0.06667	-0.07143	0.019231	-0.01887	0.178846	0.066667	-0.03125	0	-0.01613	0.016393	0	0
204	TEMPORA	802.07512	0	-0.05	0.039474	-0.03797	0.105263	-0.02381	0.029268	-0.06024	-0.02564	0	-0.01316	0.106667
205	TOYOTA	838.98084	0.095238	0.043478	0.145833	-0.00291	0.111111	-0.01667	-0.24576	-0.05618	-0.04762	0.06	0.166667	-0.05102
206	RAINBOW	840.18	-0.09091	0	0.2	-0.01389	0.248732	-0.15909	-0.09459	-0.0597	0.079365	-0.01471	-0.10448	0.133333
207	RMBH	857.5956	-0.13043	0.175	0.00617	0.06383	0.148	0.114983	-0.09375	0.068966	0.119355	-0.00965	0.044118	0.042254
208	INVSTEC	876.645	0.263158	-0.01042	-0.05263	0.177778	0.150943	-0.00492	-0.05	0.04386	0.016807	0.041322	0.120238	-0.01429
209	TMX	877.61403	0.051282	-0.04878	-0.04605	-0.2	0.013514	-0.02667	-0.20548	0.103448	-0.14063	0	-0.09091	-0.03
210	CGU	900.3	-0.03333	0.011494	0.053409	0.010989	0.277174	-0.01218	0	-0.10174	0.012195	-0.06024	-0.02564	-0.02632
211	IMPERIAL	913.20992	-0.04688	0.131148	0.167072	-0.025	0.089744	0.035294	0.056818	0.053763	-0.05465	0	0.097826	-0.0099
212	METCASH	984.07478	-0.10556	0.024845	-0.04848	0.146497	0.222222	-0.03591	0	0.047619	0.045455	0	-0.05652	0
213	I-&J	1015.83339	-0.1	-0.02778	0.057143	0.008108	-0.00804	-0.05405	-0.05714	0.045455	0.03942	0.142857	0.1125	0.006742
214	PLATE-GL	1051.12086	-0.07	0.053763	0.122449	0.272727	0.081786	0	0.066667	0.03125	-0.09697	-0.02685	0.057241	-0.01316
215	FEDSURE	1051.749	0.076923	-0.04286	0.027052	0.111111	0	0.016667	0.04918	0.015625	-0.00169	0	0.03125	0.090909
216	DELICORP	1058.36058	0	-0.07763	-0.06897	0.051852	0.197183	0.058824	-0.10167	0	-0.125	-0.01429	0.014493	0
217	DISTELL	1099	-0.08	0.031884	0.035714	-0.06897	0	0.037037	0.035714	0.034483	-0.02533	0.071429	0.066667	0
218	PIKWIK	1105.44	0.033113	-0.00641	-0.03226	0.166667	-0.05131	0.098462	-0.21569	0	-0.16071	-0.06383	0.036959	0
219	FIRSTRAND	1163.8578	0	0.066667	0.153571	-0.02344	0.28	0.125	-0.08333	0.060606	0.097143	0.00026	0	0.052632
220	JOHNCOM	1226.20932	0.116667	0.119403	-0.05333	0.014085	0.111111	-0.2375	-0.03443	0.206897	0.057143	-0.05405	-0.05	0.012331
221	MOBILE	1228.12223	0.021739	-0.1844	-0.08058	0.314286	-0.1087	0.146341	0.22695	-0.0289	-0.11111	-0.08784	0.037037	-0.08571
222	HLH	1253.46364	-0.18182	0.081481	0.027397	0	0.209	-0.09722	-0.23077	0.04	-0.05769	-0.02041	0.020833	0.020408
223	REUNERT	1262.973	-0.15517	0.081633	-0.04528	0.264822	-0.01563	-0.04286	-0.05	0.017544	-0.03448	0.017857	0.189123	-0.04478
224	HIVELD	1285.33833	0.014925	0.076471	0.277778	0.173913	0.055556	-0.05263	0.055556	0.148421	0.015385	-0.02273	0.173643	0.070013
225	ALTECH	1341.26064	0.016043	-0.01053	0.010638	0.031579	0.256837	0	-0.01667	0.033898	-0.0082	0	-0.19835	-0.02062
226	METLIFE	1362.5708	-0.05455	0.038462	0.12963	0.032787	0.022222	0.049534	0.029851	-0.01449	-0.12647	-0.00673	0.067797	0.191587
227	ALTRON	1494.2256	0	0	-0.03846	0.013333	0.207237	0.066667	0	0	0.020833	-0.0051	0	0.025641
228	TONGAAT	1512.59724	0.166667	-0.05755	0.198473	0.095541	0.104651	0.005263	0.005236	-0.14938	0.018634	0.128049	0.07027	0.006061
229	SA-DRUG	1544.1426	-0.01	-0.0202	0.041237	0.050604	0.188679	-0.04762	0.066667	-0.03125	-0.01613	0.190328	-0.04167	0.014493
230	CADSWEP	1773.52944	-0.02941	-0.05051	0.140851	0	0.09434	0.051724	-0.04918	-0.06897	-0.07037	-0.02	0	0.020408
231	PPC	1823.3208	-0.08571	0.09375	0.1	0.168831	0.222222	-0.12136	-0.01042	0	-0.10526	0.011765	0.184302	0.1
232	TIB	2003.76	-0.02632	-0.01719	0.013889	0.013699	-0.05405	-0.1	0.015873	0.046875	-0.05165	-0.01587	0.080645	0.014925
233	M-&F	2091.31131	-0.02717	-0.00559	0.00809	-0.01124	0.136364	0.02	0.078431	-0.01818	0.017407	0.004608	-0.00917	-0.00926
234	ABI	2100.92	-0.15116	0.09589	-0.0625	0.04	0.050206	-0.02469	0	-0.01266	-0.05128	0.081081	0.025	0.02961
235	PINKPAY	2106.49	0.01171	0.020833	0	0.131519	0.003006	0.032587	-0.19921	-0.01724	-0.13283	-0.04913	0.007092	-0.00912
236	WOOLTRU	2197.87972	-0.06087	0.101852	0.084034	0.269531	-0.01538	0.0375	0.120482	-0.00538	-0.01351	0.246575	0.010989	-0.02174
237	ADCOCK	2205.954	-0.08197	0.035714	0.034483	0.133333	0.005706	-0.13235	0.084746	-0.03125	-0.17742	0.078431	0.124582	-0.01639
238	ISCOR	2298.79374	-0.0082	0.07438	0.211538	0.104762	-0.03736	0.056716	0.144068	0.022222	0.113527	0.015184	0	0
239	TEGKOR	2410.32	-0.01351	-0.01799	0.098592	-0.07692	0.027778	-0.18919	0.016667	0	-0.00805	-0.03333	0	0.103448
240	FOSCHINI	2433.82659	0.072632	-0.01737	0.023256	0.136364	0.0152	-0.02482	0.065859	-0.00997	0.047579	0.010048	0.044568	0
241	LIBVEST	2491.02464	0	0.01	0	0.142857	-0.03125	0.048387	-0.01538	0	0.009	0.0625	0.073529	0.013699
242	DELFOOD	2498.66765	0	-0.04229	-0.10303	0.047297	0.129032	0.057143	-0.06108	-0.01163	-0.11765	-0.06667	0	-0.02143
243	KERSAF	2585.466	-0.08696	-0.00595	-0.06132	-0.02597	0.086667	0.055215	-0.07558	-0.03145	-0.06987	-0.04286	-0.03731	0.007752
244	FIT	2589.108	0.216667	0.090411	0.063291	0.095238	-0.06522	-0.16279	0.111111	-0.1	-0.13444	0.032258	-0.07813	0.016949
245	TRENCOR	2637.10425	0.027778	-0.21622	-0.06276	0.203704	0.055385	0.078717	0.189189	-0.04545	-0.11167	-0.01351	0.041096	-0.09211
246	AECI	2689.25	0.042857	0.09589	0.07	0.190476	0.08	-0.07407	-0.06	0.210638	-0.04425	0.018519	0.227273	-0.13333
247	AFROX	2690.43817	-0.05	0.042105	0.060606	0.047619	0.045455	0.025043	0.008547	0.016949	-0.08333	-0.09091	0.15	-0.09565
248	GENBEL	2721.6	0.046875	0.014925	0.067164	0.174825	0	-0.02976	0.06135	0.086705	-0.00957	0.032609	-0.02105	0.021505
249	PEPKOR	2794.23536	0	-0.0625	0.166667	0.028571	0.222222	0.068182	-0.06383	0	-0.07955	0.160494	0.042553	-0.04082
250	SISA	2887.1326	0.3	0.041987	-0.0125	0.088608	0.162791	-0.25	-0.09333	-0.04457	-0.09375	-0.06897	0.333333	-0.11111
251	M&R-HLD	2909.47767	0.114504	0.09589	-0.00525	0.020532	0.031579	-0.05612	-0.03243	0.061453	0.010737	0.021164	0.19171	-0.05217
252	EDCON	3413.26158	0.18	0.016949	-0.05	0	0.309386	-0.02027	0.041379	-0.04636	-0.09722	0.038462	0.048593	-0.01418
253	PREM-GRP	3896.50184	-0.03077	0.111111	-0.11429	0.241935	-0.18182	-0.03175	-0.03852	0.051724	-0.11475	-0.05556	-0.01961	0.04
254	SAFREN	4056.63225	0.01678	0.132967	0.002716	0.024343	0.208175	-0.01259	-0.12351	0.02	0.006624	-0.04809	0.191611	0.0504
255	CGS-FOOD	4229.82	-0.01435	0.029126	-0.00943	-0.04762	0.06	-0.04981	0.03	0.048544	-0.05556	-0.0098	0.089109	0.085455
256	NEDCOR	4304.16	0.015267	0.022556	-0.11765	0.091667	0.291298	0.047619	-0.14773					

	94MC	1995JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES
1	INDFIN	0.4	-0.18182	-0.05556	-0.11765	1	0.1	-0.09091	-0.16667	-0.2	-0.1	0.388889	-0.2
2	CAPSTAR	0.8853	0.030303	0	0.117647	0	0	0.131579	0	0.162791	0.12	0	-0.01786
3	TRNPACO	2.31	0	-0.15	0	0	0.235294	0	0	0.571429	0.272727	0	-0.16667
4	OMEGA	2.97975	0	0.4	-0.28571	0	0.68	-0.28571	0.266667	-0.07895	-0.07143	0.030769	-0.10448
5	LABAT	3.02484	-0.15385	0	0.181818	-0.03846	-0.28	0.333333	-0.125	0.047619	0	0	0.090909
6	LA-GROUP	3.135	0.106383	0.153846	0.166667	-0.42857	0	0.25	0	0	0	0.2	0.5
7	VALAUTO	3.3	0	0	0	0	0.166667	0	0.142857	-0.25	0	0.333333	0
8	VALCAR	3.3	0	0	-0.28571	0	0.4	0	0	0	0	-0.14286	0.333333
9	ADONIS	3.3323	0.444444	0.107692	0	-0.28571	0.1	0.090909	0.425	0.030303	0	0	0.176471
10	SPANJAARD	3.42	0	0.7	0	0	0	0.058824	-0.05556	0	0.058824	0.111111	-0.1
11	JIGSAW	3.57	-0.09091	0.1	-0.01818	0	-0.07407	-0.1	0.031111	-0.44444	0	0.6	0
12	BATEPRO	3.6252	0.25	0.2	0.25	-0.13333	0.430769	0.111111	0	0.6	-0.03125	0.290323	0.155
13	NICTUS	3.8475	-0.04545	0.047619	0.090909	0.105833	0.153846	0.133333	0	0	-0.02941	-0.0303	0.079375
14	ADVANCED	3.87125	-0.15	0	0	-0.11765	-0.2	0.083333	0.769231	-0.13043	-0.25	-0.06667	0.071429
15	ROADCOR	4.5	0	0	0	0	0	0	2	0	0	0.5	0.333333
16	SAMRAND	4.76008	0	0.5	0	0	0	-0.125	0	0	0.095238	0	0.043478
17	PSG	4.79996	0	0	0	0	0	0	0	-0.72727	0.5	-0.33333	0.5
18	PALS	4.8	0.222222	0.090909	0	-0.16667	0	-0.1	-0.11111	0.375	0.090909	-0.17083	0
19	AUTOQIP	5.0347	0.333333	-0.2	0.375	0	-0.04545	-0.14286	0.111111	-0.1	1	-0.08333	-0.0303
20	CORWIL	6.02316	0	0	-0.37143	0.027273	0	0.136364	-0.08	-0.1087	0	-0.02439	0
21	SERVEST	7.1775	0	0	-0.07692	0	0.75	0.004762	0.170732	-0.0625	0	-0.04444	0.023256
22	BRANDCO	7.48	0	0	0.02	0.039216	0.037736	0.090909	0	0	0.25	0.066667	0.0625
23	HCI	8.0997	0.333333	-0.16667	-0.3	0.428571	0	0.2	0.5	0	-0.11111	0.125	0.388889
24	COMPASS	8.624	0	0	0	-0.07692	0	-0.08333	0	0	0.095238	0.082609	0.041667
25	RENTSUR	9.0625	0	0	0	0.05	0.47619	0.193548	-0.02703	0	0.111111	0.3125	0.24
26	RLSPROPS	9.24378	0.045455	0.086957	0.6	0	0.225	-0.26531	-0.33333	-0.04167	0.304348	-0.06667	0.071429
27	SMGHOLD	9.74975	-0.05556	0.117647	0	0.263158	0.083333	0.380769	-0.2	0	0	-0.25	0
28	RETCORP	9.936	-0.11111	0.125	0.083333	0.025641	0.45	-0.08621	0.226415	0.153846	0	0.413333	0.273585
29	ANBEECO	10.63438	0.2	-0.05833	0	0	0.090909	0.75	-0.31111	-0.16667	0.2	-0.06667	0.071429
30	ADCORP	10.9032	0.111111	0	0.086667	-0.04375	0.033333	0.16129	0	0.25	0.088889	0.061224	0.153846
31	CLYDE	11.264	-0.05263	0	-0.11111	0.0625	0.058824	-0.2	0	0.071429	0	-0.06667	-0.07143
32	DAEWOO	11.2875								0.393939	0.065217	0.020408	-0.04
33	PACIFIC	11.48895	0.052632	0.02	0	0.05	0	0.071429	0.031111	0	0.111111	0	0.2
34	SUPRGRP	11.7504	0	0	0	0	0	0	0	0	0	0.923077	0.04
35	ADVSOURCE	12.22992	-0.12308	0.140351	-0.10769	-0.13793	-0.04	-0.16667	-0.075	-0.08108	-0.05882	0.09375	-0.14286
36	PASDEC	12.291	0	-0.125	0	0	0	0	0	-0.28571	0	-0.1	-0.11111
37	ALEXWYT	12.9904	0.2	0.1	-0.0303	0.0625	-0.02941	-0.15152	0.142857	-0.1875	0.038462	0	0
38	VENTEL	13.1287	0.035714	0	0.034483	0.366667	0	-0.09756	0.142857	-0.1	0.111111	0	-0.25
39	WINBEL	13.54886	-0.32143	0.052632	-0.15	-0.11765	0.333333	0.25	-0.2	0.15	-0.13043	-0.25	0.8
40	WBHO	14.49	-0.06667	0.071429	-0.06667	0.071429	0.166667	0.134286	-0.07895	0.257143	0	0.318182	0.12069
41	SASFIN	15.285	0	-0.1	0.044444	0.085108	0.019608	0.25	-0.07692	-0.1	0.124074	0.034483	0
42	WINHOLD	16.122	0.076923	-0.28571	0	0	-0.1	0.388889	-0.2	0.25	-0.2	0.25	0.24
43	DON	17.835	0.018688	0	0.111111	0.116667	0.044776	0.028571	-0.05556	-0.05882	-0.03125	-0.08548	0.25
44	SPICER	18	-0.05333	0.285714	-0.11111	0	0.0625	-0.05882	0.125	0.333333	0.041667	0.04	0.384615
45	INMINS	18.0472	-0.16667	-0.1	-0.22222	0	0	-0.42857	0	0	0.1	0	-0.09091
46	GEN-OPTIC	19.285	0	-0.09091	0	-0.1	0	0	0	-0.04444	0.034884	0	0.395349
47	VESTCOR	19.31293	-0.09302	-0.02564	0	0	0	0	0	0	-0.21053	-0.13333	-0.15385
48	SPESCOM	19.798	-0.10156	0.087719	-0.03226	0.066667	0	-0.08594	-0.06897	0.074074	0.034483	0.033333	0.140323
49	TOLARAM	19.8	0.111111	0	0.05	0.095238	0	0	0	0	0	-0.17391	0.289474
50	SONDOR	19.92	0.041667	0	0	0	0	0	0.024	0	0.28	0	0.03125
51	GLODINA	20.06028	0.05	-0.04762	0.24	-0.16667	0.05	0	-0.04762	0.1	0.045455	0.043478	-0.16667
52	CONFED	21.01407	0.24	0.096774	0	0.031176	0.323529	0	0.066667	0	0	0.006042	0.145833
53	LITECH	21.75338	-0.15	0.111111	0	0.032353	0	0	0	-0.11765	0.1	0.090909	0.158333
54	THEBEFIN	21.95375	0.184211	0.222222	-0.09091	0.2	0.083333	0.043846	-0.08397	0.183333	-0.15493	-0.08333	-0.04545
55	BOLWEAR	22	0	0.178571	0.030303	0.058824	0.388889	0.02	-0.1	0.111111	0	-0.08	-0.21739
56	MARSHALLS	22.0857	0.057143	0.12027	0.25	-0.06	-0.06383	0	0	-0.0375	0.02439	0	0.071429
57	HICORL	22.68	0.184211	-0.02222	0.136364	0.08	-0.03704	0.173077	-0.03279	0.050847	0.209677	0.013333	0.052632
58	YORKCOR	22.9977	0	0.043478	0.125	0.019231	0.018688	0	0	0	0.1	0.137931	-0.0303
59	SHOREDITS	23.37307	0.019231	-0.09434	0.25	-0.08667	0	-0.11111	0.083333	0.076923	0.071429	-0.03333	0.103448
60	GUBINGS	24.43293	0	0	-0.075	0.021622	0.135135	0	-0.07143	-0.05128	-0.08108	-0.08824	-0.0129
61	QUICKCO	25.686	-0.25	-0.16667	0	-0.2	0.75	-0.14286	-0.16667	-0.2	0.25	0	-0.2
62	CEMENCO	25.9608	0.125	0	0	0	0	-0.03556	0	0.047619	0	0	0.028409
63	CMH	28.5	0.212121	0.0875	0.057471	0	0.397826	0.04	-0.07692	0.125	0.407407	0.105263	0.005714
64	FORIM	28.7604	-0.08333	-0.09091	0	0	0	0	0	0.02	-0.04	0	0
65	NINIAN	28.971	-0.02778	0.028571	0.377778	0.086957	0.2	0.066667	0.03125	0	0.008485	-0.0303	-0.03125
66	STRAND	29.75544	-0.03125	-0.22581	0.291667	0.322581	0.073171	0.022727	0.333333	0.016667	0.147541	-0.14286	0
67	ARIES	30.8	0	0.063636	0	0	0	0	0	0.027273	0	0	0
68	CARGO	31	0.097561	-0.11111	0.2	0.145833	0.163636	-0.19531	0.08	0.037037	0.071429	-0.13333	0.230769
69	AF-&-OVER	36.65	0	0	0	0	0	0	0	0	0	0	0.161471
70	EUREKA	39	-0.08011	0	-0.01555	0.104265	0.572246	0.090992	-0.16597	-0.05	0	0.052632	-0.05
71	WBHOLD	39.48	0	0	0.058824	0.017778	0	0	-0.11111	0	-0.3	-0.07143	0
72	JASCO	39.89442	0.1	-0.01515	0	-0.03077	-0.05397	0.068966	-0.03226	0	0.083333	0.076923	-0.18571
73	LASER	45	-0.24	0.010526	-0.02083	0.021277	-0.0625	-0.14444	-0.03896	-0.18919	0.166667	-0.05714	-0.09091
74	ETINGTN	45.71948											0.037736
75	MIDAS	47.11876	-0.18033	0.0625	0.058824	0.07	0.026316	0.051282	-0.04878	-0.02564	-0.09895	0.088235	-0.05405
76	PUTPROP	49.94325	0.1875	-0.05263	-0.02778	-0.05714	0.030303	0	0.176471	-0.1	0.138889	0.060976	0.05
77	RELYANT	50.56839	-0.08108	0	0	0.058824	0.111111	0	0	0.034	-0.25	0.033333	0
78	BASREAD	51.48	-0.04	-0.08333	0.090909	-0.125	-0.12381	-0.05435	-0.13793	0.2	-0.05556	-0.09412	0.558442
79	LESRNET	51.75	0.071429	0.133333	0	0.111765	0	0.277778	-0.04348	-0.09091	0.1	0.136364	0.36
80	GOLDSTEIN	52.3738	-0.03333	-0.08621	0.037736	0.090909	-0.090909	-0.02752	-0.00943	0.142857	0.139167	0.222222	0.181818
81	FRANSAF	52.40466	-0.03704	0	-0.07692	0	-0.04167	-0.08696	0	0	0	0	-0.04762
82	ITLILE	53.49398	0	0.3	0	0	0.055556	0.105263	0	0	0.059048	0.090909	0.083333
83	MONEX	58.1175	0	0	0	-0.46154	0.428571	0.7	-0.29412	-0.125	0	-0.09524	0.052632
84	FASHAF	58.19235	-0.10769	0.017241	0.118644	0.030303	0.264706	-0.0814	0.012658	0.0025	0.084788	-0.05747	0.109756
85	MACMED	58.27591	0	0	0.133333	-0.05882	0	-0.125	-0.07143	-0.04615	0.209677	-0.06667	0.171429
86	HARWILL	59.2325	-0.09091	0	-0.04	0	0.020833	0.22449	0	0.166667	0	0.02459	0.04918
87	OKFLODS	60	0.222222	-0.26087	-0.41176	-0.5	1	0	-0.15	-0.11765	0	-0.6	0.433333
88	GLOPVT	60.58	0.058824	-0.11111	0.25	-0.2	0	-0.03125	0.018129	0.133333	-0.11765		

96 BOWCALF	78.678	-0.12727	0.1875	-0.05614	0	0.226415	-0.03077	0.031746	-0.08308	0.050847	0.048387	0	-0.04615
97 CAPTALL	79.25148	0.066667	-0.03125	-0.09677	0	0.017857	0	0	0	0.035088	0.824561	0.028846	0.046729
98 KAROS	79.35882	-0.09375	0	0.344828	-0.12821	0.147059	0.025641	-0.04338	0.013158	0.038961	-0.025	-0.03846	0
99 INTEGREGAR	81.29745	-0.05882	-0.09375	0	0	0.265379	0	0	0	0	0.055556	0.315789	0.12
100 NEIHOLD	83.5023	0	0	0	-0.07692	-0.08333	0.090909	0	0.041667	0	0.04	0.230769	0.0625
101 CONCOR	97.65248	-0.04	0.020833	0.010204	0.142857	0.178571	0.030303	-0.11765	0.033333	0.13871	0.15942	0.125	0
102 ATLAS	97.97652	-0.08421	0.034483	0.022222	0.032609	0	0.044084	-0.02128	-0.02174	0	0.022222	0.086957	0.08078
103 TIWHEEL	99.90552	0.333333	0.141667	0	-0.0146	-0.03704	0.038462	-0.03704	0.076923	0.042857	0.041096	0.032895	0.063694
104 AHEALTH	102.91372	-0.17722	0.046154	0	0.029412	0.137714	-0.01282	-0.11688	0.058824	0.111111	0.125	0.044444	0.106383
105 PUTCO	103.85025	0.074627	-0.16667	0.25	0.045333	0.04	0.051282	-0.02439	0.05	0.047619	0.140909	0.084211	-0.07767
106 COATES	104.7	-0.06667	-0.05357	0.018868	-0.03042	0.058824	-0.07407	0	0	0.09	0.111111	0.066667	0.03125
107 SABLE	104.832	-0.00763	0.038462	0	0.037037	0.071429	-0.06667	0	0	0.035714	0.022759	0.035088	0.016949
108 CONTROL	105.39018	0.025641	0	-0.09	0.055556	0.052632	-0.05	0	-0.06316	0.142857	0.125	0.133333	0.176471
109 PRIME	109.30149	0.032	0.129199	0.192265	0.3083	-0.03776	0.048666	-0.03743	0.209596	0.181102	0.013333	0.014254	0.189189
110 AUTOPGE	112.6199	0.066667	-0.0625	-0.03333	0.586207	0.152174	0.018868	0.055556	0.122807	0	0.09375	0	0.285714
111 GROWPNT	116.9412	-0.05	0	0.013158	-0.01299	0.092105	-0.07692	0	0	0.027778	0.081081	0.015825	-0.05263
112 BOUMAT	117.07358	0.166667	-0.17857	0.088957	0.32	-0.10606	0.026441	0.033333	0.16129	-0.04167	0.028986	0.014085	-0.02778
113 GSHOLD	117.3408	-0.23077	0.1	0.090909	-0.025	0.017241	-0.11017	0	0.190476	0.0936	0.333333	-0.02778	0.028571
114 UNIHOLD	118.0377	-0.08108	0	0.058824	-0.08571	-0.1875	0.076923	0.071429	0	0	0.026667	0	0.033333
115 S&JLAND	120.98	-0.13043	0	0.025	-0.07317	0.026316	-0.05128	0	-0.13514	-0.03125	0	0.032258	1.875
116 SPURHLD	122.88736	-0.02778	-0.13143	0.118421	0.029412	-0.02857	-0.05	0.012658	-0.03125	0.064516	-0.0303	0.0525	0.030303
117 CASHBIL	129.898	-0.1875	0	-0.11538	0	-0.03435	-0.02273	0	-0.39535	0.038462	-0.11111	-0.15	-0.01961
118 SAAMBOU	133.857	0	0.083333	0.115385	0.051724	-0.09836	0.047273	0.070175	0.118644	0.045455	0.082754	0.333333	0.333333
119 PROFURN	136.14002	-0.05	0.026316	0.294872	0.061224	0.115385	0.017241	-0.0339	0.175439	0.119403	-0.01333	0.081081	0.225
120 S&SHOLD	140.164	-0.12941	0.064865	0.217949	-0.01053	0.010638	0	-0.02105	0.027957	-0.02128	0.086957	0.35	0.022222
121 GROPROP	141.6	0	-0.05405	0	0.092857	0	0	0	0.055556	-0.05263	0.132778	0.038961	0.05
122 BEARMAN	142.05464	0.103846	0.004646	0.052632	0.033333	0.032258	0.25	0.025	-0.03333	0.025641	0	0	0
123 PERSEL	144.612	-0.03125	-0.03226	0	-0.06267	0.014286	0.070423	-0.01316	0.013333	0.184211	0.166667	0.271429	0.037004
124 TOCO	145.45092	-0.05	-0.08772	0	0.134615	-0.11864	0.192308	-0.03093	-0.01667	0.084746	0.171875	-0.02667	-0.13699
125 KH-PROPS	150.447	-0.00952	0	-0.01923	-0.05882	0.086458	-0.05051	0	0	0.021277	0.020833	0.121429	0
126 FURNCAP	151.19832	0.123188	-0.06452	-0.16552	0.25	0.133333	-0.02941	0.030303	-0.02941	-0.04485	-0.06452	-0.10345	0.253846
127 UNISERV	152.60098	0	0	0.02381	0.002326	-0.04762	0	0.125	-0.03333	0.034483	0.044444	0	0.024553
128 CORHOLD	154.0896	-0.09375	0.086207	0.027778	0.054054	0.102564	0.069767	0.130435	-0.03435	-0.03846	0.182	0.074112	0.079365
129 MEDCLIN	157.4432	-0.11905	0	0.027027	0	0.315789	-0.116	0.162791	-0.02	0.122449	0.054545	0.103448	0.291406
130 MORIBO	157.59301	0.410256	0.181818	0.192308	0.032258	-0.03125	-0.16129	-0.23077	0.16	0.034483	-0.08333	-0.04545	0
131 NEI-AFR	160.1548	-0.06	-0.02128	-0.02174	-0.02222	-0.02727	0.14486	-0.02041	0.125	-0.05556	0.198608	0.153846	0.083333
132 METAIR	164.285	-0.03448	0.035714	0.137931	-0.00758	0.117557	0.014286	-0.01408	0.2	0.166667	0	0	0.22449
133 BOECORP	166.78926	-0.15152	0.107143	0.16129	0	-0.05	0.088235	0.108108	0.317073	-0.07407	0.04	-0.10612	0.108696
134 ALEXNDR	168.1537	-0.05822	-0.01818	0.120741	-0.05	0.017544	-0.03448	-0.07143	0.057692	0.090909	0.026	0.033333	0.064516
135 OXBRIDGE	170.81246	0	-0.09091	-0.02133	0.034483	0	-0.03333	-0.03448	0.142857	0.1875	0.025789	0.302083	0
136 CFC	173.6	0	0	-0.01429	0.053913	0.194444	0.069767	0.021739	0.021277	0.041667	0.0048	0.16	0.034483
137 SPUR	173.98908	-0.10345	0	0.057692	-0.01818	0	-0.05556	0.04	-0.03846	0.02	0.039216	0.057736	0.054545
138 BRAIT	177.1528	0	0	0	0	0	0	-0.48889	0.130435	0	0.346154	-0.28571	0
139 CONSHU	181.3734	-0.08333	0	-0.03636	0.075472	0.082456	-0.03333	0.077586	0.024	-0.02344	0.04	-0.00923	0.015873
140 SEARDEL	185.0417	-0.06	0	-0.00465	0.119565	-0.02913	0.065	0.084507	0	0	0.107143	-0.2	0.125
141 METKOR	186.7502	0.060606	-0.07143	0.107692	0.097222	0.265823	-0.042	0.052632	-0.05	0.157895	0.027273	0.026549	0.113793
142 RMSPROP	188.7935	-0.03488	-0.04819	-0.03797	0	0.026658	-0.06849	0.058824	-0.01389	0.098592	0.025641	0.014475	0.052632
143 TELJOY	194.2732	0	-0.18182	0.244444	-0.16071	0.170213	-0.04545	0.161905	0.106557	-0.00741	-0.10448	-0.03333	0.025862
144 OCTODEC	195.54774	-0.0625	0.033333	0.096774	0.029412	-0.06061	-0.03226	0	0	0.05	0.085714	0.015625	0
145 OZZ	199.33812	-0.13043	0.15	0.15942	0.05	-0.0119	-0.01205	-0.03098	0.141026	-0.03371	0.116279	0	0.016042
146 STANTRN	210.05325	-0.10526	0	-0.19118	0.018182	0.25	-0.2	-0.03571	-0.16667	-0.11111	-0.5	0.7	0
147 GROUP-5	222.85796	-0.13043	0	0.041667	0.088	-0.11111	-0.04167	-0.07826	0.226415	0.129231	0.275862	-0.08108	0.147059
148 STOCKS	222.87974	-0.08889	0.082927	0.125	0.010101	0.04	-0.08654	-0.02105	0.049462	-0.04167	0.088957	0.4	0
149 APEX	224.00832	0	0	0.1	-0.04545	-0.084	-0.05556	0	0.058824	0.088889	0.071429	0.11381	-0.01818
150 FASIC	238.87764	-0.01538	-0.10156	0	0.217391	-0.04857	0.078923	-0.02143	-0.0146	0	0.014815	0.074453	0
151 YABENG	248.9616	-0.03448	0	0.059524	-0.04494	-0.01176	0.10281	-0.09091	0.15	0.086957	0.05	0	0.047619
152 OCEANA	253.344	0	0	0.133333	0.176471	-0.025	0.01359	0.025641	0	0.05	0.02381	0.023256	0.169091
153 FRAME	254.79438	0	-0.05882	-0.0175	0.217949	-0.02105	-0.05376	0.079545	-0.05263	-0.03778	-0.11765	0.066667	0.25
154 NEWPORT	255.9052	0.030303	0	0	0	0.05502	-0.01961	-0.02	-0.03061	0.021053	-0.07216	0.107022	0
155 AMAPROP	259.97862	-0.01408	-0.03571	-0.02222	-0.00152	-0.10938	-0.0614	-0.06542	0.1	0.136364	-0.016	0.073171	-0.10769
156 ARGENT	268.8	0.05	-0.02381	-0.04878	0.010051	0.179487	-0.04348	-0.04545	-0.04762	-0.075	-0.07049	0.029412	0
157 HYPROP	281.8335	-0.03077	-0.007937	-0.00157	0	0.108333	-0.02256	-0.03077	0	0.062286	0.062992	0.074074	-0.03448
158 GRINDROD	295.08892	0.049383	0.051765	-0.05287	-0.04126	-0.00759	0.020408	0.03	0.031553	-0.04412	0.075	0.046512	0
159 MR PRICE	297	-0.04545	-0.02381	0	0.121951	-0.08848	1.118644	-0.52	0.047619	0.113636	-0.09857	0.193182	0.047619
160 INTRUST	299.88756	0	0	0	0	-0.04545	0	0	0.047619	0.090909	0	0.096667	0.023077
161 CBD-FUND	317.5588	-0.06977	-0.05	0.078947	-0.02439	0.08085	0	0.05	0.02381	0.069767	0.043478	0.021458	-0.04348
162 IPROP	318.23811	-0.04348	-0.01136	-0.01149	0.069767	-0.00217	0	-0.01111	0.033708	-0.02174	0.077778	0.028866	0
163 PANPROP	321.97725	-0.01818	-0.03704	0.021154	-0.01	0	-0.09091	0.044444	0.042553	0.054082	0.09375	-0.02857	-0.01961
164 FINTECH	326.90595	0.047059	0.123596	0.02	0.117647	-0.01667	0	-0.00909	0.027523	0.160714	0	0	0.153846
165 CLINICS	336.6	-0.07692	-0.1	0.203704	-0.07692	0	-0.06167	-0.01818	0.111111	0.1	-0.0303	0.0625	0.070588
166 BOE	346.82949	0	0	0	0	0.143617	-0.02326	0.080952	-0.00881	0.075556	0.011364	0.157025	0
167 CITYLDG	348.50088	0.064935	0.140976	-0.01075	0.01087	-0.06452	-0.01149	-0.0814	0.113924	0.125455	0.183673	0.034483	0.166667
168 DNA SUP	355.862	0	-0.01379	0.013986	0	0	0.015862	-0.2069	-0.13043	0	0	0	-0.02
169 OMNIA	357.4133	0.027778	-0.02703	0.017778	0.092795	-0.05128	-0.05405	0.028571	-0.02778	0.085714	0.052632	0.025	0.021463
170 PIONEER	360.92304	-0.03704	-0.07692	0.083333	-0.03846	0.03	0	0.020408	-0.02	0.081633	0.075472	0.108421	-0.03333
171 CENPROP	392.3784	-0.01923	-0.0129	-0.04167	-0.02174	0.044444	-0.04255	-0.06667	0.03461				

192 GARDIAN	578.4288	0	0	0.026	0	0	0	0	-0.03333	0.092069	0	0	0.209677
193 ROMATEX	608.705	-0.11111	0.0625	0	0.088235	0.081081	-0.038	0	-0.07895	0.028571	0.055556	0.001579	-0.10326
194 DELTA	614.05024	-0.03636	0	-0.08	0.041667	0.06	0.056604	0	0.017857	-0.02702	0	0.018182	-0.06071
195 UNITRAN	639.95456	-0.03488	0.012048	-0.01738	0	-0.02439	0	0	0.16475	0.088957	0.04	0.153846	0.066667
196 HUDACO	658.09744	-0.02381	0.04439	0.071429	0.011111	-0.05495	0	-0.05581	0.075	0.046512	0.055556	0.115789	-0.01887
197 NUCLECKS	661.77712	-0.07692	0.033333	0	0.064516	-0.01515	-0.05046	0.04918	-0.09375	0.103448	0.03125	0.030303	-0.05294
198 DALYS	709.94	-0.01889	-0.00992	0.043606	0	0.121951	-0.05005	0	-0.02299	-0.0182	-0.08371	0.010627	0.024267
199 SA-EAGLE	710.906	-0.13793	0.004	-0.04082	-0.08511	0.27907	-0.09091	0.2	0.096667	0.015385	-0.01515	0.153846	0.093333
200 SFW	714	-0.05556	0.068235	-0.22222	0.214286	-0.08235	0	0.089744	0.176471	0.044	0.176471	0.041667	-0.016
201 Lenco	722.87485	0	-0.02174	0	-0.02222	-0.06818	-0.08	0	-0.13514	0.0125	0.049383	-0.07647	-0.07643
202 VOLTEX	726	-0.16	0.047619	0.035227	-0.06667	0	0.047619	-0.06818	0.195122	0.142857	0.068571	0.135593	0.014925
203 LANGEBOEG	728	0.051282	0.060976	-0.03448	-0.0119	0.024096	0.010588	0.011765	0	0.023256	0	0	0.109091
204 VENTRON	740.37151	-0.03226	-0.18333	-0.02041	0	0.280833	0.033333	-0.06452	0	0	-0.07759	-0.00935	0.132075
205 DUNLOP	765.76	-0.02669	-0.01613	0.121967	0	0.030303	-0.125	0.008403	0.083333	0.038462	0.022222	0.037037	0
206 SILTEK	786.13974	-0.13235	0.111186	0.015385	0	-0.01515	0.015385	0.090909	0.222222	-0.03273	0.142857	0.083333	0.038462
207 POWTECH	790.9854	-0.04651	-0.14634	-0.07143	0.230769	0.079063	-0.12941	-0.02027	0.068966	-0.0129	-0.08497	0.176571	0.018182
208 SHOPRIT	827.83525	0	-0.11667	0.056604	0.035714	0.246552	-0.07563	-0.0303	0	0.078125	0	0.072464	0.135135
209 ILLOVO	845.22912	-0.03571	-0.11111	0.041667	0	0.0944	-0.03704	0	0.038462	0	0.022222	-0.1087	0.120325
210 TEMPORA	862.70184	-0.06024	-0.02564	0.131579	0.034884	0.05618	0.043404	-0.0625	0	-0.06667	0.011905	0.058824	0.022222
211 PSL	869.04475	-0.14	-0.04651	0.195122	0.061224	-0.02692	0	0.088	0.047794	0.140351	0.046154	0.176471	0.1305
212 INHOLD	885.06	-0.02542	-0.02609	-0.01786	0.090909	0.081081	-0.04833	0.00885	0.017544	-0.01724	0.052632	0.124667	0.044776
213 SANTAM	913.78365	-0.03922	-0.12245	0.116279	0.0125	0.193416	0.035862	-0.01695	0.137931	0.045455	0.057971	0.315068	0.184583
214 CGU	925.5	0	-0.13514	0.05875	0.151515	0.078947	0.097561	0.066667	0.052083	0.04	0.096154	0.035088	-0.01695
215 ALTECH	944.80928	-0.05263	-0.14444	0.025974	0.075949	0.332941	0.018182	-0.0625	0	-0.04762	-0.04	-0.02083	0.042553
216 JDGROUP	949.57863	0	0.034483	-0.03667	-0.07018	0.150943	-0.04918	-0.01724	-0.03509	0.118545	0.180328	0.138889	0.170732
217 DISTELL	952	0.0625	-0.07765	0.181818	0.010889	0.021739	-0.06915	-0.02857	0	0.041176	-0.03529	0.097561	-0.05556
218 TOYOTA	995.14596	-0.05376	-0.10227	0.088608	0.176744	-0.08	-0.06522	0.188047	-0.05882	0.051667	0.1	0.072727	0.084746
219 PIKWIK	1029.77	-0.08811	-0.15459	0.228571	0.023256	0.126955	0.020661	-0.0081	0.061224	0.007692	0.183206	0.055355	0
220 I-J	1035.72022	-0.03348	0.004619	0.034483	0.088889	0	-0.02449	-0.00628	-0.01474	0.014957	0.006452	0.004274	0.031915
221 DELCORP	1106.03448	-0.07143	0	-0.08769	-0.01724	0.017544	-0.18103	-0.12421	-0.04878	0.282051	0	-0.05	-0.03158
222 MOBILE	1236.63116	-0.10156	-0.06087	0.191975	-0.04688	0.106557	-0.02222	-0.09091	0.016667	0.042077	0.16	0	0.034483
223 METCASH	1326.36166	-0.09977	-0.025	0.051282	0.04878	0.023256	0.057273	0.021739	0.085106	-0.05882	0.083333	0.057692	0.063636
224 RAINBOW	1333.97	-0.02941	-0.06061	-0.1129	0.090909	-0.03333	-0.27586	-0.09524	0.157895	-0.11364	0.025641	-0.075	0.027027
225 BIDVEST	1496.46301	-0.01515	0.043077	0.029851	0.144928	0.07595	0.027397	-0.01333	0.08	0.063291	0.035714	0.034483	0.088889
226 FEDSURE	1551.674	-0.05556	-0.08824	0.182258	0	-0.01389	-0.01408	0	0.101714	0.013158	0.090909	0.154762	0.092784
227 ALTRON	1554.086	-0.2	-0.09375	-0.06897	0	0.510963	-0.15	0.058824	0	0.016667	0.027322	0.06383	-0.01
228 MCCARTHY	1586.06577	-0.05882	0	-0.01042	0.276596	0	-0.05	-0.03509	0.08	-0.01313	0.055172	0.045752	0.090625
229 ELLERINE	1588.88974	-0.10488	-0.01907	0.111111	-0.01485	-0.03846	-0.01333	-0.09459	0.026866	-0.01163	0.072765	0.111111	0.025
230 JOHNCOOM	1602.48375	0	-0.01493	-0.00758	0.007634	0.030303	0.029412	-0.006	0.043478	0.041667	0.066667	0.3	0.119038
231 INVSTEC	1771.7544	-0.04348	-0.12121	0.12069	0.038462	0.125926	-0.04046	-0.0625	0.037037	0.05	0.027211	0.069536	0.05
232 CADSWEP	1809.0609	-0.04	-0.01667	0.100212	0.074219	0.109091	-0.09836	0.003636	0.059783	-0.02154	0	0.052632	0.058333
233 M-NETSS	1837.82144	-0.07143	-0.12308	0.070175	0.041311	0.015873	-0.09375	0.008621	-0.00855	0.103448	-0.04344	0.157025	0.057143
234 SA-DRUG	1909.8	-0.06167	-0.01786	0.036364	0.017544	0.007655	0	-0.03448	-0.053571	0.016949	0.033333	0.225742	0.066667
235 ADCOCK	2016.7856	-0.07143	0.049383	0.011765	0	-0.00451	0.02381	0.023256	-0.18182	0.013889	-0.09589	0.11303	-0.0137
236 ABI	2080.78	-0.03571	-0.09459	0.044776	0	-0.03714	0.04451	0.038778	0.022099	0.081081	0	0.1125	0.123596
237 METLIFE	2082.59865	-0.08282	-0.11037	0.12406	0.023411	0.183007	0.008475	-0.05042	0.094395	0.008086	0.179144	0.042895	0.054705
238 PICKNPAY	2104.925	-0.08108	-0.07353	0.053492	0.080806	-0.01429	-0.04348	-0.00909	0.009174	0.045455	0.056667	0.180556	0.105882
239 RMBH	2272.968	0.08	-0.07407	0.04	-0.03846	-0.2152	0	-0.05128	-0.05405	0.142857	0.05	-0.11905	0
240 HLH	2310.51906	-0.06	0.12766	0.082642	0.008772	0.078261	-0.03226	0.018667	0.098361	0.037612	0.144928	0.063291	-0.00595
241 IMPERIAL	2377.42977	-0.0073	-0.04412	-0.01846	0.008	-0.07143	-0.16239	-0.12245	0.011628	0.206897	-0.04762	0.01	0
242 DELFOOD	2407.41952	-0.0752	-0.07027	-0.06105	0.0625	0.1	-0.03743	0.027778	-0.03243	-0.02235	0.128857	0.076923	0.238095
243 FIRSTRAND	2413.5552	-0.06542	-0.01375	0.014486	0	0.182796	0.090909	-0.01667	0.152542	0.019706	0.051095	0.069444	0.103896
244 M&F	2456.288	-0.08824	-0.07497	0.048387	-0.01538	0.03125	0	0.112903	0.043478	0.051044	0.04	0	0.128205
245 TIB	2525.16	-0.23404	0.222222	0.022727	0.066667	-0.04167	0.054348	-0.04124	-0.03226	-0.02222	0.022727	-0.04444	0.05814
246 PEPPOR	2529.41696	-0.08696	-0.11111	0.149286	-0.03125	0.074194	-0.03904	-0.03125	-0.02581	0.076159	-0.171875	0.12	-0.09524
247 TRENCOR	2616.76295	-0.06867	-0.05357	0.070189	-0.07143	0	-0.03077	-0.02778	-0.03265	0.075949	-0.01176	-0.00794	0.08
248 FIT	2703.366	-0.17188	0.037736	0.018182	0.096429	0.107492	-0.03765	0.061538	0.057971	0.123288	0.04878	0.139535	0.030612
249 REUNERT	2736.24185	-0.13333	-0.07692	0.0375	0.084337	0.011852	0.037037	-0.01429	-0.05072	-0.01527	0.069767	-0.00913	0.027726
250 PLATE-GL	2754.31223	-0.15657	-0.06587	0.108974	0.040462	-0.08222	-0.01807	0.09816	0.027933	-0.02174	0.116667	0.104478	0.124324
251 TONGAAT	2823.86412	-0.02703	-0.17056	0.084746	0.0625	0	0.014706	-0.02899	-0.01493	-0.00455	0	0.169231	0.039474
252 LIBVEST	2890.73778	-0.0625	-0.02018	0.051724	0.016393	-0.06452	0.034483	0.033333	0.064516	0.115709	0.041096	0.026316	0.089744
253 TEGKOR	3180.56	-0.06341	0.046875	0.114428	0.008929	0.026549	0.008793	0.017241	0.033898	0.016393	0.040323	0.147287	0.025338
254 AFROX	3516.05309	-0.06173	-0.02974	-0.0411	-0.02143	-0.0073	-0.05882	-0.125	-0.02321	-0.01852	0	-0.15094	0.088889
255 HIVED	3527.16923	-0.14211	0.045399	0.011905	0.035294	-0.03977	-0.01183	-0.00599	0.048193	0.050575	0.072222	0.005181	0.149485
256 GENBEL	3801.9	-0.10909	-0.05102	0.010753	0.010638	-0.05263	-0.01889	-0.01143	0.017341	-0.01705	0.156069	-0.0395	0.074468
257 PPC	3822.08922	-0.18095	-0.02326	0.047619	-0.02955	0.159251	-0.0208	0	0.031915	0.030928	0.1	0.090909	-0.05
258 FOSCHINI	4058.78025	-0.04615	0.137097	0.055887	0.013689	0.013514	0.226667	0.108696	-0.10784	-0.01099	0.142222	-0.06139	-0.06329
259 KERSAF	4097.71596	-0.09402	0.037736	0.008364	0.146789	-0.024	-0.09836	-0.05455	-0.05769	-0.01031	0.0625	-0.19608	0.073171
260 AECI	4208.25	-0.03017	-0.00444	0.053571	0.110169	0.030534	0.052222	0	0.021583	0.109155	0.085238	0.098551	0.09314
261 ABSA	4453.15293	-0.14844	-0.05917	-0.08	0	-0.11957	-0.01235	0	0.15	0.021739	0.020617	0.021277	0.25
262 SISA	4807.9109	-0.07692	0.015152	-0.01493	0.132576	-0.05418	-0.04286	0.068657	-0.02235	0.025	-0.03833	-0.18116	0.012389
263 SAPPI	5188.36866	-0.04237	-0.04425	0.078704	0.030043	0.066667	-0.00047	-0.02362	0.016129	0.015873	0.117188	-0.02098	0.099143
264 CGS-FOOD	5306.175	-0.08846											

	95MC	1996JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 INDFIN	0.8	0	0	0	0.066667	0	2.125	-0.6	-0.2	0.25	0	0.25	-0.12
2 TRNPACO	1.87	0.692308	0	0.227273	-0.14074	-0.13793	0.2	0	-0.16667	0.1	-0.01818	0.018519	0
3 ADVANCED	3.46375	0.592593	0.744186	0.066667	0.175	0.047872	0.020833	0.387755	0.323529	0.644444	-0.05405	0.142857	-0.15625
4 SPANJAARD	3.819	0	0.090909	0	0	1.25	-0.03846	-0.008	0.048387	-0.24615	0.142857	-0.0625	0.047619
5 LABAT	4.80872	0.73913	-0.05	-0.21053	0.6	-0.25	0.083333	-0.23077	0.033333	-0.16129	0.307692	0.470588	-0.22
6 VALAUTO	4.95	0	0	0	0.25	0	0	0	0.04	-0.03846	0	0	0
7 WACO	5.16555	0.266667	-0.02632	0	-0.04054	-0.08451	-0.07692	-0.10667	0.097015	0.479592	-0.06897	-0.07595	-0.0137
8 LA-GROUP	5.28	0.3125	0.238095	0	0.153846	0.066667	-0.04375	0.24183	0.157895	0.090909	0.25	0.133333	0.088235
9 SAMRAND	5.38096	0.583333	0.052632	0	-0.125	0	-0.08571	-0.125	0	0.028571	-0.02778	-0.04286	0.029851
10 HCI	5.5419	0.952381	0.341463	-0.10909	0.020408	-0.16	-0.00952	0.057692	0.109091	0.352459	0.333333	0.238636	0.009174
11 OMEGA	5.5622	0.373134	-0.02174	0.111111	0.05	-0.18095	-0.01163	0.047059	-0.10112	0.125	0	0.133333	-0.01961
12 VALCAR	5.775	0	0	0	0	0.125	0	0.222222	-0.01818	-0.07407	0.1	0	-0.09091
13 CAPSTAR	5.93151	0	0	-0.18182	-0.33333	-0.04	0.041667	-0.30667	0.057692	0.636364	0.277778	0.023913	-0.34783
14 ADONIS	6.0265	0.1	-0.04762	0	0	0	0	0.03	-0.05	-0.07368	-0.03409	-0.11765	-0.2
15 INMINS	6.3696	-0.05	0.052632	-0.25	0.466667	0.181818	0.153846	0.533333	0.021739	-0.10638	-0.02381	-0.04878	-0.10256
16 JIGSAW	7.854	-0.25	0	0.333333	-0.125	-0.14286	0.333333	-0.1	-0.22222	0.071429	0.333333	0.5	0.166667
17 CORWIL	8.1796	0	-0.025	0.025641	0.125	0	0.333333	0.083333	-0.1	0.15385	0	0	-0.09091
18 ADVSOURCE	8.91094	-0.16667	0.4	0.571429	-0.01818	-0.07407	0.1	0.236364	0.014706	0.15942	0	0.25	-0.15
19 AUTOQIP	9.74105	-0.03226	0	0.066667	0.1	0	-0.04545	-0.02381	0.036585	0.058824	0.111111	-0.17	0.204819
20 PALS	10	0	-0.15789	0.125	-0.02222	-0.125	-0.02597	-0.14667	0.046875	0.641791	-0.14545	-0.04598	0.084337
21 SERVST	10.4975	0.461538	0	-0.07895	0.257143	-0.02273	-0.15279	-0.09722	-0.16923	0.296296	-0.05714	-0.15152	0
22 BRANDCO	10.846	0.058824	0	0.111111	0	0	0.06	-0.01887	0.057692	0	0.272727	-0.02857	-0.11765
23 WINBEL	10.94331	0.076923	-0.10714	-0.28	0.111111	0.25	-0.12	0.272727	0.035714	0.034483	0	0.233333	-0.10811
24 COMPASS	11.44	0	0	0	0.08	0.037037	-0.11111	0	0	0.033333	0	0.004032	0
25 BATEPRO	11.60064	-0.05556	-0.03529	0.020732	-0.10667	-0.0597	0.190476	0.066667	0	-0.0625	0.044	0.026316	0.025641
26 NICTUS	12.04125	0	0	-0.02941	0.016364	-0.0303	0	0	0	-0.025	-0.12821	0	-0.11765
27 WINHOLD	12.8976	0	-0.10714	0	-0.16	0.238095	-0.19231	0.666667	0.028571	0.111111	0.05	0.214286	-0.05882
28 RENTSUR	12.905	0.076923	0.142857	0.5	0.2625	0.066667	1.0825	-0.24242	0.2	0.433333	0.080233	0	-0.06087
29 GEN-OPTIC	13.0185	-0.16667	0	0	0	0	0.03	0.04	0.153846	0	0.375	-0.04242	-0.41772
30 WBHO	13.29914	-0.09524	-0.05263	0.011111	-0.15278	-0.02951	-0.0473	-0.06383	-0.12879	0.236957	-0.05797	-0.11538	0.026087
31 PACIFIC	14.6223	0.09375	0.142857	0.1	-0.02273	0.069767	-0.27174	0.19403	0	0	0	-0.0625	-0.06667
32 VENHEL	15.1485	0.5	-0.16667	0	-0.14286	0	-0.3	0.047619	0.045455	0.652174	-0.18421	0.032258	-0.21875
33 SMTGHOLD	15.203	0.055556	0.210526	0.130435	-0.15385	-0.04545	0.12381	-0.15254	0.04	-0.03846	-0.02	0.020408	0
34 ANBEECO	16.4758	-0.05882	-0.09375	0.285714	0.111111	-0.04	-0.11458	-0.02941	-0.0625	0	0	-0.12	-0.09091
35 CLYDE	16.544	-0.07692	0	0	0	-0.16667	0	0	0	0.2	-0.33333	0.5	0
36 KAIROS	17.55758									0.176471	0.02	-0.11765	-0.27778
37 SUPRGRP	17.9712	0.298246	-0.04054	-0.07042	0.015152	0.029851	-0.05797	0.492308	0.051546	0.137255	-0.00862	0.033043	0.010101
38 RETCORP	19.872	-0.14706	0.172414	-0.11765	-0.08	0.072464	0.054054	0	0.038462	0.308642	0.018868	-0.07407	0.08
39 PASDEC	20.14704	0.733333	-0.16667	-0.15385	0.090909	-0.2	-0.04167	-0.1087	-0.39024	0.48	0.108108	-0.07317	-0.02632
40 PSG	20.50892	2.75	-0.25	0.555556	0.071429	0.2	0.066667	-0.26042	0.014085	0.069444	0.012987	0.153846	-0.04444
41 GLODINA	21.30345	0.333333	0	0.03125	-0.1375	-0.13043	0.016667	-0.04918	-0.03448	0.017857	-0.21053	0	-0.11111
42 ROADCOR	21.6	0	-0.25	0	-0.24444	0.176471	0	0	0	-0.05	0.126316	0	0
43 RLSPROPS	23.93902	-0.26667	-0.04545	0.020667	-0.28571	0.2	0.422222	-0.0625	0.016667	-0.07131	0.545455	-0.05882	-0.05
44 WBHOLD	24.252	0.153846	0.083333	-0.01538	0.275	-0.075	0.102703	-0.1125	0.169014	-0.10976	-0.0274	-0.07042	0.090909
45 ALEXWYT	24.357	0.333333	-0.19444	-0.06897	-0.11111	0	-0.175	-0.19192	0.35	-0.16667	0.111111	-0.02	0.081633
46 FORIM	24.6425	0.770833	0.764706	0.433333	0.046512	-0.2	-0.04444	0	-0.09412	0.12987	-0.06897	0.061728	-0.18605
47 TOLARAM	27.494	-0.06122	0.086957	-0.28	-0.06286	-0.08537	-0.05333	0	0	-0.29577	0	0	0.3
48 ADCORP	27.858	0	0.166667	0.4	-0.00816	0.010417	0.298969	-0.04762	0.016667	0.04918	0.078125	0.15942	0.3125
49 SONDOR	30	0.071429	0	0.066667	0.1	0.022727	0.133333	-0.10049	0	0.1	0.010101	-0.1325	-0.11765
50 MARSHALLS	32.2791	-0.08333	-0.00727	0	-0.0566	0	-0.104	0.116071	0.029	0.2	0	0.033333	-0.03226
51 YORKCOR	33.36	-0.0625	0.033333	-0.00645	0	0.033333	-0.03226	-0.03333	-0.13793	0.04	-0.30769	-0.11111	-0.125
52 BOLWEAR	33.6	0.272727	0	0	-0.2381	-0.0125	-0.07911	-0.14286	0.083333	-0.13846	0.017857	-0.03509	-0.11364
53 LITECH	34.24542	0	0.12	0.107143	-0.05181	0	-0.02778	0.014286	0.144366	0.078923	-0.14286	0.245	0.081081
54 ARIES	37.4	0	0	0.068182	0	0	0	0	0.031818	0	0	0	0
55 GLOPVT	37.979	0.033333	0.225806	0	-0.05263	0.022222	-0.07609	-0.05882	-0.15	0.044118	-0.01408	0.135714	-0.01887
56 HARWILL	38.442	0	0.03125	0.060606	0.085714	0.236842	0.042553	0.061224	0	0.009615	0.014286	0	0
57 CEMENCO	39.3888	0	0.090909	0	0.25	0.083333	0.019231	-0.23077	-0.04	0.041667	0	0.1	0.222222
58 DATATEC	39.4	0.226994	-0.1	0.116233	0	0.12	0.25	-0.02143	-0.07299	-0.09449	0.204252	0.07971	0.080537
59 FRANSFAC	39.402	-0.25	0.2	0.111111	0.161017	-0.02985	0.923077	-0.16	0	0.085714	-0.10526	-0.11765	0
60 AF-&OVER	41.25	0.444444	0	0	0	0.076923	0	0	0.014286	-0.01408	0	0.083929	0
61 CARGO	42.4	0.053571	0.067797	-0.07937	-0.02759	-0.14894	-0.16458	0.091837	-0.11215	0.105263	0.038095	-0.0367	0.014286
62 GUBINS	42.54945	0.04	0	0.019231	-0.01887	-0.15385	0	0.045455	0.043478	-0.08333	-0.18182	0	-0.11111
63 SASFIN	44.0572	0.666667	-0.2	-0.05	0.052632	0.02	0.078431	-0.03636	-0.0566	0.357	-0.12879	-0.04348	0.090909
64 PUTPROP	44.9225	0.142857	0	-0.04167	0	-0.13043	0.17	-0.05983	0.036364	0.061404	-0.05785	-0.05714	-0.09091
65 SPICER	46.02	0.033333	0.354839	-0.11905	-0.13514	-0.0375	-0.1039	-0.07246	-0.23438	-0.03061	-0.12632	0.060241	-0.22727
66 EUREKA	46.32	0	0	0	0	0.111111	0	0.005495	0.054645	0.088083	0	0.142857	0.0875
67 CONFED	46.52571	0.127273	0	0	0.019516	0	0	0	0.016129	0.111111	0.004714	-0.02857	0
68 HICORL	49.896	0.443299	-0.08571	-0.33594	-0.23529	0.292308	-0.2619	0.193548	0.027027	-0.10526	-0.05882	-0.0625	0
69 SHOREDITS	50.41278	0.111111	-0.12857	-0.12	0.060606	-0.17857	-0.01739	-0.0177	-0.27928	0.0875	-0.32184	0.271186	-0.13333
70 CULLINAN	50.9005	0.085714	0.052632	0.375	0.005909	-0.09091	-0.37	0.07937	-0.23448	0.136364	-0.264	-0.20652	-0.06164
71 CHEMSERVE	53.47224	0.147059	-0.02564	0.018947	-0.00524	0	-0.02632	0.037838	-0.10542	0.088235	0.010811	0.112299	-0.07692
72 AUTOPEGE	53.76692	-0.05556	-0.11765	-0.06667	0.042857	-0.1726	0.1	-0.04545	-0.04762	0.30667	0	-0.20192	-0.09639
73 GOLDSTEIN	53.87305	0.025641	0.125	-0.06044	0.009524	-0.24528	0.15625	-0.02703	0	0.07	-0.09474	-0.06977	0
74 NINIAN	54.94514	-0.03226	0	-0.00867	-0.01429	-0.07971	0	0.023622	0	-0.23846	-0.13265	0.117647	0
75 MONEX	55.7328	2	0	-0.16667	0.2	0	0.083333	-0.29231	-0.01739	0.482301	-0.01493	0.030303	0
76 SABVEST	56.8127	0.216667	-0.28767	-0.17308	0.013953	-0.02326	-0.04762	-0.1	-0.11111	0.3125	0.047619	-0.01818	-0.00926
77 LASER	57.24	0.34	-0.20896	0.037736	0.018182	-0.00714	-0.17266	-0.04348	-0.2	0.590909	0	-0.14286	-0.125
78 MACMED	59.47456	0.666667	0.04	0.538462	0.08	0.087361	0.126126	-0.064	0.025641	0.041667	-0.016	-0.01626	-0.08333
79 SPESCOM	60.759	0.184211	-0.13333	-0.02564	-0.06579	-0.10282	0.269841	-0.025	-0.08974	0.140845	0.296296	0.2	0.03254
80 STEERS	6												

101 SABLE	108.13689	0.033333	0	0.129032	0.028571	0	-0.02222	0.005682	-0.0226	-0.0052	0.024096	-0.05882	0
102 PUTCO	108.3425	-0.03158	-0.21739	0	0.023611	0.138889	0.097561	0.044444	-0.25532	-0.08571	0.110938	-0.08824	-0.03226
103 ETINGTN	112.89549	0.112743	-0.07258	0	0	-0.13043	0.06	-0.04811	0.02	0.137255	-0.0431	-0.0991	0.06
104 NEIHOLD	112.9737	0.117647	0	0.421053	-0.07407	-0.008	0.086957	-0.128	-0.0367	-0.07143	0.015385	-0.01515	0
105 BATSA	113.29875	0.052632	-0.125	0.042857	-0.05918	-0.0503	0.1	-0.0303	0	0.055	-0.19632	0.152672	-0.07285
106 COATES	115.368	0.212121	1.25	-0.11111	0.01	-0.5	0.05	-0.04762	-0.1875	-0.00769	0.09375	-0.14286	0.1
107 GSHOLD	119.18144	0.138889	0.073171	0.006364	-0.09091	-0.35	0.384615	0.011111	-0.06593	0.132941	-0.06316	-0.10112	-0.125
108 DAEWO	121.776	0.521739	0.242857	0.448276	-0.05952	-0.07627	-0.0367	-0.01905	-0.09709	-0.03226	-0.21111	-0.14085	-0.25902
109 MASONITE	122.51946	0.055556	0.105263	0.02381	-0.0566	-0.225	0	0.012903	0.082803	-0.08118	0	-0.04516	-0.18919
110 NUWORLD	124.45138	0.136364	0.02	0.176471	-0.03333	-0.06897	0.074074	-0.04138	0.014388	0.134752	0.05	0.047976	0
111 SPURHLD	126.35736	0.205882	-0.02439	0	-0.075	-0.02703	0.022778	0.033333	-0.03226	0.111111	-0.06	-0.07394	-0.02941
112 AHEALTH	128.63016	0.201923	0.024	0.0625	-0.00735	0.052222	0.081071	-0.06667	-0.01429	0.050725	0.206897	0.028571	-0.04444
113 NRB	130.563	0.6625	-0.17293	-0.09091	0	-0.2	0.15	0.032609	-0.05263	-0.06667	-0.09524	-0.13158	-0.01515
114 GROWPNT	131.85544	0.027778	0	-0.01351	0	-0.04748	0.046875	0.059701	0.014085	0.083333	-0.15385	0.118182	-0.15882
115 FASHAF	132.71205	0.372549	-0.00714	-0.00719	-0.02174	-0.15556	0.008772	-0.02609	-0.125	-0.08163	0.044444	0.021277	0.052083
116 GLODREEF	133.814	0.020833	-0.22449	0.394737	-0.16981	0.118182	-0.06504	-0.07826	-0.04009	0.03	0.145631	-0.16102	-0.12121
117 CONTROL	136.2186	0.166667	0.271429	-0.11236	-0.06962	-0.0274	0.211268	-0.0814	-0.10127	-0.06127	0.060606	-0.14286	0.133333
118 GROPROP	137.6	-0.04762	-0.025	-0.02564	-0.07	-0.06061	0.032258	0	0.0625	0.102941	0.038293	0.013699	-0.05405
119 OXBIDGE	141.868	0.02	-0.01961	-0.04	-0.03417	-0.08696	-0.01905	-0.02913	0	-0.05	-0.00474	-0.05376	-0.09091
120 RMSPROP	148.25258	0.025	-0.02439	0	-0.1	-0.09722	0.160308	0.042857	-0.06849	0.029412	0.257143	-0.13884	-0.04286
121 ATLAS	154.82432	-0.01961	-0.04	-0.0625	0.044444	-0.14894	0.120125	0.011905	-0.03529	0.04878	-0.03488	-0.0241	-0.05756
122 LESRNET	163.69485	0.090909	0.361111	0.04449	0.032	0.007752	0.230769	0.078125	-0.01449	0.058824	0.027778	0.067568	0
123 MIDAS	167.69	-0.125	-0.32571	0.115254	0	-0.1	-0.05983	0.090909	0.125	0.085926	0.055556	0.006579	-0.12418
124 FURNCAP	169.26735	0.07362	-0.14286	0.006667	0.013333	-0.04605	-0.06138	-0.06667	0.111111	0.237143	0.029412	0.142857	-0.05
125 PERSBEL	174.447	0.109091	0.163934	0.15493	0.22122	-0.18	0.097561	-0.06667	0.038095	0.03211	-0.10578	-0.05	0.026316
126 KH-PROPS	179.50525	-0.03846	0	0	-0.05	0.030526	-0.02174	0	0	0	0.011111	0.037912	-0.05682
127 SPUR	179.92392	0.086207	-0.04762	0	-0.03333	-0.06207	0.036029	0.021739	0.007092	0.056338	-0.03333	-0.0331	-0.0219
128 RICHWAY	180.217	0	0	-0.02222	-0.02273	-0.02326	0.071429	-0.06667	0.083333	0.082353	-0.04348	-0.04545	0.071429
129 OCTODEC	183.24914	0.076923	-0.07143	0	0.130769	-0.13043	0	0.016667	-0.01639	-0.01333	0.095439	-0.04667	0.034965
130 RAI	183.75204	0.074074	0.103448	0.125	-0.11111	-0.03125	0.322581	0.097561	0.055556	0.2	0.210526	-0.15942	-0.0431
131 STANTRN	193.0826	0.764706	-0.3	-0.04762	-0.15	-0.29412	0	-0.08333	-0.54545	0.2	-0.08333	-0.09091	-0.16
132 CONCOR	194.27824	0.111111	0.1	-0.06727	-0.07843	-0.15745	0.060606	0	0.080952	0.165198	-0.07692	-0.11667	-0.0566
133 NEI-AFR	203.33824	0.169231	0.039474	0.316456	-0.03846	-0.16	0.02381	-0.02326	-0.12381	0.13587	-0.10048	-0.01596	-0.13514
134 SEARDEL	209.93338	0.377778	-0.16129	-0.19808	0.043902	-0.19626	-0.03488	-0.15663	0	0.3	0.043956	-0.18026	0.093333
135 MORIBO	219.4185	-0.04762	-0.04	0	0.010417	0.010309	0.326531	-0.24615	-0.06122	0.184783	-0.01835	-0.16822	-0.01124
136 ALEXNDR	220.22	0.151515	0	-0.07158	-0.13143	0.013158	0.006494	-0.03226	0.033333	0.006452	0.0375	0.031847	0
137 KAROS	222.16752	0.026667	-0.01299	-0.02632	-0.05405	-0.05714	0.030303	-0.03976	-0.07692	-0.1	-0.03704	-0.03846	-0.016
138 UNISERV	222.6336	0.020408	0.4	-0.03571	0	0.037037	0.051429	0.027397	-0.10667	0.19403	0.03125	-0.01818	-0.04321
139 NEWPORT	230.31468	0.042553	0	-0.0102	-0.01031	0.05925	-0.03125	-0.05376	0.022727	-0.11111	0.075	-0.06868	0.027027
140 ROMATEX	235.942	0.212121	-0.3	0	-0.05714	-0.37273	0.121951	-0.29348	0.015385	0.015152	-0.07463	0	-0.05161
141 TOCO	243.65656	0	-0.14286	0.018519	0.036364	-0.07018	-0.20755	-0.07619	0.061856	-0.09709	-0.06452	-0.10345	-0.37179
142 GROUP-5	245.01832	0.153846	0.133333	-0.17882	-0.03846	-0.24	0.25	0.155789	-0.04	0.073913	-0.07692	-0.11111	-0.09375
143 CBD-FUND	245.49738	0.090909	-0.10417	-0.06977	0	-0.01155	0.111111	0.03	-0.13592	0.033708	0.043478	0.043958	0.01087
144 S&SHOLD	248.948	0.268116	-0.10343	-0.16667	0.038462	-0.25926	0.1	-0.06364	-0.20583	-0.0625	-0.09333	-0.04412	0.215385
145 MEDCLIN	253.4544	0.219512	0	-0.02	0.020408	-0.07	0.305914	0.016667	0.008197	-0.05691	0.025862	-0.07563	0.123182
146 RELYANT	254.4645	0.126761	0	0.5	-0.05833	-0.02655	0.045455	-0.04348	-0.10909	0.015306	0.005025	-0.05	-0.13684
147 CONSHU	256.80573	0.015625	0	-0.07692	-0.20833	0.002105	-0.06522	-0.06977	-0.25	0.083333	-0.08923	-0.13514	-0.2
148 YABENG	260.1885	-0.04545	0.009524	0.037736	0.018182	-0.05	0.039604	-0.02857	-0.03922	0.081633	0.037736	-0.08182	-0.0495
149 FASIC	261.1305	0	-0.01379	0.153846	0.090909	-0.05889	0.151515	-0.06316	0.061798	-0.04762	-0.05556	-0.04412	-0.15
150 FRAME	261.16179	0.02	-0.06863	-0.01474	0.043011	-0.15464	-0.08537	0.04	0.166667	0.121978	0.07	0.02804	-0.02542
151 TIWHEEL	272.12316	0.437126	0.041667	0.04	0.076923	0	0.014286	0.021127	0.172414	0.029412	-0.03429	-0.11243	0.12
152 PANPROP	277.9515	0	-0.06	-0.04043	0.071429	-0.1	0.037037	0.059524	-0.08989	0.180247	-0.06818	-0.07317	-0.07895
153 PIONEER	286.28772	0	-0.05172	-0.02273	-0.05882	-0.04167	0.017391	0.068376	-0.112	0.081081	-0.025	0.095299	0.025
154 TELJOY	286.48048	0.042017	-0.1129	-0.31818	-0.09333	-0.10294	0.016393	-0.09677	-0.1	0.126984	-0.10563	0.03937	0.015152
155 CFC	297.6	0.116667	-0.10448	0	0.007333	0.016667	-0.01311	0.129568	-0.05882	0	0.067188	0.117647	-0.05263
156 CASHBIL	301.925	0	0.3	0	-0.08462	-0.2605	-0.10227	-0.13924	0.044118	0.295775	0.065217	-0.08163	-0.05556
157 CLINICS	302.94	0.408451	-0.08	0	0.25	-0.13043	0.044	0.087379	-0.0625	-0.02857	0	0.009804	-0.01068
158 HYPROP	304.38018	0.035714	-0.03448	0	-0.0182	-0.13846	-0.00893	0.081081	-0.08333	0.045455	0.089809	-0.01695	-0.01724
159 SYCOM	311.94774	-0.01667	-0.0678	-0.06364	0.009709	-0.05023	0.053763	-0.03061	0.010526	0.010417	0.041237	-0.03865	0.044444
160 AMAPROP	314.53719	0.068966	-0.05645	-0.11111	0	-0.18269	0.146341	0.06383	0.2	-0.25	-0.03333	-0.12644	-0.02703
161 GRINDROD	315.5347	0	0.055556	0.028139	0.183158	-0.02135	-0.03636	-0.00943	0.041905	-0.07407	-0.02	0	-0.06122
162 SAAMBOU	327.762	-0.03	0.010309	0.173469	-0.09565	-0.01923	-0.02157	0	0.030303	0.019608	0.134615	0.055254	-0.06452
163 ARGENT	335.84848	-0.08571	0	0.03125	-0.23636	-0.19048	0.058824	-0.01852	-0.11321	0.191489	-0.07143	-0.21569	-0.1
164 METAIR	339.9	0.116667	-0.07463	-0.03226	-0.21667	-0.08889	-0.02564	0	-0.05263	0.027778	0.059459	-0.02551	-0.1623
165 PROFURH	345.40352	0.122449	0.136364	-0.06	-0.13043	-0.05	0.147368	-0.0367	-0.10476	0.106383	-0.04808	-0.09091	-0.04444
166 COROHL	347.2317	0.117647	-0.21053	0	0	0.133333	0.164706	-0.06566	0.021622	-0.04762	0.194444	0.196977	0.160976
167 IPROP	350.32673	0.166667	0	-0.03571	-0.00926	-0.08598	0.041667	-0.036	-0.17012	-0.07	0.005376	0.280749	-0.03448
168 CAPITAL	354.8525	-0.04	-0.06696	-0.04762	-0.1	-0.05556	0.058824	0.055556	-0.00853	0.011494	0.011364	0.011236	-0.01111
169 CENPROP	366.21984	0	-0.05462	-0.1	0.055556	-0.07895	0.142857	-0.05	0.003895	0.022472	-0.12088	-0.0125	-0.03797
170 RA-HOLD	369.21672	-0.03704	0.153846	-0.11667	0.056604	0	0.25	0.071429	0	0.226667	0.152174	-0.01887	-0.09615
171 GLOHOLD	370.06668	0.15942	0.25	-0.05	-0.07895	-0.04	-0.17857	0.028986	-0.27857	0.188317	-0.11864	-0.06731	-0.09278
172 BEARMAN	373.63842	0	-0.0375	-0.02915	0.081081	-0.1875	0.076923	-0.02857	-0.02092	0.030769	0	-0.01194	0.10574
173 BOUMAT	389.12076	0	-0.02857	0.088235	-0.09189	-0.16667	0.14286	-0.27465	-0.11165	0.04918	0.0625	-0.03431	-0.06599
174 ELBGROUP	394.051	-0.08944	-0.07463	-0.02645	-0.3	-0.09048	0.068063	-0.06863	0.05				

202 CTP	663.20761	0.04	0.065934	0.030928	-0.02	-0.0898	0.121076	-0.008	-0.0121	0.030612	0.133663	-0.07424	0.070755
203 PIKWIK	671.16	0	-0.07692	0.083333	-0.01538	0.03075	0.086957	-0.35429	-0.10619	0.059406	-0.01869	0.028	0.009346
204 BOE	696.9591	0.071429	0	0.016667	-0.07429	0.12069	-0.04615	-0.01613	0.098361	0.059701	0.094085	0.038961	0.009083
205 LANGEBERG	702.4	0.25	0	0	-0.05833	-0.02655	0.028182	-0.01786	0	0.027273	0.035398	-0.05128	-0.00901
206 ALTRON	736.44772	0.212121	-0.25	-0.05556	0.047059	-0.21921	0.066667	0.076389	-0.09677	-0.07857	0.03876	-0.17164	-0.0091
207 GARDIAN	740.02704	-0.02667	0.061644	0.16129	-0.01136	-0.08046	0.0625	0.035294	0.030341	0.123596	0.075	-0.02326	0.057143
208 HUDACO	750.14016	0.153846	0.016667	-0.14167	-0.04078	-0.06883	0.086957	-0.0468	0.021277	-0.075	0.027027	-0.14474	-0.03846
209 COMPAREX	750.68884	0.032258	0.09375	0.085714	0.684211	-0.01875	0.082803	0.076471	0.092896	0.04	0.298077	0.12037	0.190083
210 NUCLICKS	758.7918	0.09375	0	0.114286	-0.02564	-0.06579	0.014085	-0.13889	0.032258	0	0.221875	-0.03896	-0.02703
211 UNITRAN	758.79264	0.015625	0.076923	0	-0.08114	-0.17813	0.121673	-0.0678	-0.04182	-0.05	0.052632	-0.11538	0.021739
212 ALTECH	786.75368	0.05102	-0.07767	-0.15789	-0.05625	-0.08212	0.174242	-0.09677	-0.1	-0.08825	-0.01704	-0.18544	-0.02128
213 DELCORP	789.79761	0.032609	-0.10526	0.082353	0.166667	-0.07619	0.051546	-0.08333	-0.06522	0.104651	-0.01053	-0.04255	-0.15556
214 VOLTEX	815.02134	0.058824	-0.08333	0.045455	-0.01232	-0.11243	0.083333	-0.03077	-0.09524	-0.01754	-0.02679	-0.06716	-0.096
215 LENCO	844.76664	0.034483	0.4	-0.21429	-0.0303	-0.0625	0.225333	-0.18889	0	0.232877	-0.19444	-0.03448	-0.07143
216 DUNLOP	857.57552	0.2	-0.10714	-0.06667	0.037143	-0.10714	-0.064	-0.05983	0.154545	-0.07087	0.026087	-0.12712	-0.00971
217 CORNICK	861.98866	0.066667	0.125	0.027778	-0.02703	0	-0.03333	-0.05172	-0.15152	0.164286	0.104294	-0.05556	0
218 SILTEK	873.43074	0.074074	-0.12931	-0.14851	0.053935	-0.14222	0.243523	-0.09583	0.129032	0.058776	0.183594	-0.0066	-0.00332
219 DALYS	891.968	0.132478	-0.06084	-0.10516	0.041302	-0.02163	0.01249	0.014762	0.034277	-0.05395	0	-0.04039	-0.03295
220 SA-EAGLE	1000.37538	0.121951	0.032609	-0.07684	-0.03488	0.060241	0	0.022727	-0.01111	0.125	0.065657	-0.03318	-0.04412
221 TEMPORA	1019.30592	0.105913	0	-0.10891	0.022222	-0.08696	-0.0381	0.079901	0.046512	-0.04	0.064815	-0.04348	-0.04091
222 JDGROUP	1080.76206	0.041667	-0.04	-0.03083	-0.08696	-0.08571	0.223958	0.021277	-0.125	0.222381	-0.00784	-0.09091	-0.04348
223 ILLOVO	1083.34404	0.348148	-0.01099	0	0.088889	-0.20918	0.09871	0	-0.0119	0.072289	0.02809	-0.04918	0.000575
224 RAINBOW	1090.76	0.131579	-0.13953	0	-0.08108	-0.02353	-0.13253	-0.23611	-0.34545	-0.01389	0.126761	0.075	0.046512
225 MOBILE	1147.1673	-0.12	0.022727	0.00716	0.288889	0	-0.05172	0.018182	-0.0119	0.058233	0.121387	0.051546	0.053922
226 POWTECH	1178.17488	0.130952	0	-0.13158	0.090909	-0.11222	-0.01274	-0.01935	-0.02632	-0.02027	-0.03448	-0.14286	0
227 ELLERINE	1235.97705	0.195122	0.020408	-0.04	-0.09342	-0.04186	0.208738	-0.14859	-0.0566	0.14	0.102193	-0.04435	-0.12236
228 SANTAM	1246.57634	0.053571	0.008475	-0.21008	0.106383	-0.08654	0.024	0.104167	-0.04528	0.264822	-0.05938	-0.03654	0.065517
229 TOYOTA	1255.01448	0.09375	-0.1	-0.06349	-0.09966	-0.17308	0.302326	-0.10714	0.2496	-0.09677	0.142857	-0.06875	-0.12752
230 DIDATA	1265.30866	0.0625	0.078431	-0.01818	0.107407	0.076923	0.167702	0.06383	0.135	-0.00661	0.141907	0.257282	0.081081
231 SAGEGRP	1301.72365	0.113924	-0.11364	0.128205	-0.06818	0.02439	-0.00952	0.012019	-0.08738	-0.06915	0.028571	0	0.072778
232 DISTELL	1309	0.117647	0.386316	0	-0.07692	-0.04167	0.06087	-0.05738	0.043478	0.085	0.031746	-0.02308	0.023622
233 SHOPRIT	1333.43254	0.190476	-0.12	-0.00682	0.006865	-0.10636	0.134021	0.022727	-0.07556	0.225962	-0.03529	0.168699	-0.13043
234 PSL	1344.308	-0.02222	0.045455	-0.07809	0.068235	-0.05286	0.186047	-0.15804	0.084507	-0.00433	0.043478	-0.00383	0.03151
235 I-&J	1391.47788	0.092784	-0.0566	-0.3	0.114286	-0.10256	0.085714	-0.07895	-0.11429	0.209677	-0.0137	0.055556	0.052632
236 PICKNPAY	1416.325	-0.0166	-0.06962	0.063492	-0.02559	-0.042852	0.075107	-0.002	-0.16	0.142857	0.033333	-0.0754	0.010989
237 CGU	1500	0.310345	-0.02632	-0.03378	-0.00709	-0.11429	0.03871	0.142857	-0.12228	0.15625	0.037838	0	-0.03125
238 INHOLD	1565.48	0.142857	-0.0375	0.012987	0.064103	0.012048	-0.02357	-0.01852	-0.00943	0.206349	0.005263	0	0.038578
239 METCASH	1748.62233	0.068966	0.096774	0.014706	-0.01449	-0.11765	0.127	-0.08955	-0.08197	0.107143	-0.09677	0	0.125
240 NASPERS	1782.592	0.03125	0.060606	0.092857	0.118954	-0.06542	0.2	-0.01708	0	-0.05957	-0.02262	-0.07986	0.091824
241 DELFOOD	1874.64224	0.039604	-0.06667	0.040816	0.12	-0.03929	-0.03346	-0.04327	-0.04082	0.053191	0.010101	-0.044	0.035565
242 SA-DRUG	1910.84	0.060811	0.006369	-0.02532	0.054545	-0.08177	0.027027	0	-0.03684	-0.07104	0.217647	0.028986	-0.00948
243 HLH	1915.64604	0.513514	0	-0.03571	-0.19259	-0.19266	0.107955	-0.16923	-0.14815	-0.07971	-0.03937	-0.01639	0.025
244 JOHNCOM	1928.55817	0.137931	0.121212	0.013514	-0.02667	-0.04111	0.014286	0.089437	-0.01297	-0.07692	0.006944	-0.06207	-0.05882
245 BIDVEST	2055.14485	0.204082	-0.03324	-0.07965	0.096154	-0.21053	0.151111	-0.08301	-0.00674	0.081545	-0.01905	-0.05882	0.014583
246 ADCOCK	2077.23	0	-0.0125	0.012658	-0.025	-0.037422	0.194444	-0.11628	0	-0.01579	0.16043	0.157895	-0.07823
247 ABI	2219.58231	0.041667	0.013333	-0.05263	0	0.034722	0.164844	0.054054	-0.02564	0	0.052632	-0.13425	0.046512
248 HIVELO	2219.97177	0.204082	-0.23729	0.191111	0.12381	-0.05085	-0.1	-0.20635	-0.1375	0.064327	0.016484	-0.13514	-0.075
249 TIB	2220.24	0.113636	-0.09137	-0.03409	0.035294	0.045455	0.086957	-0.068	0.008584	0.115	-0.00769	-0.04264	0.012146
250 CADSWEP	2262.9678	0.055118	0.014925	-0.05882	-0.04563	-0.00332	0.016667	0.077049	-0.03044	0.150549	0	-0.0274	0.016901
251 FIT	2303.091	-0.03704	0	0.152308	0.084746	0.03125	0.00303	-0.09366	0.206	0.061389	0.078947	-0.02439	0
252 MCCARTHY	2315.88009	0.088825	-0.07895	-0.10514	-0.10968	-0.06522	0.085271	0.057143	-0.0473	0.041489	-0.04828	-0.05072	-0.1145
253 TRENCOR	2372.27418	-0.05263	0.013889	0.033973	0.16	0.011494	0.045455	-0.04348	0	0.025455	0.033708	0	0.021739
254 RBH	2444.8176	0.042553	0.163265	-0.06605	-0.0283	-0.01942	0.138614	0.008696	0.034483	0.175	0.023617	0.020979	-0.04795
255 SISA	2449.29059	0.1	-0.21212	0.067308	0.022222	-0.07609	-0.08824	-0.03226	-0.04444	0.148837	-0.125	-0.04762	-0.0625
256 FIRSTRAND	2451.267	0.084615	0.099291	-0.165	0.128405	-0.10345	0.153846	0.056667	0.047319	0.204819	0.034625	-0.00976	-0.05172
257 KERSAF	2498.5064	0.027027	-0.00439	0.052863	-0.02128	-0.08587	0.16647	-0.15556	0.024931	0.014324	0.041096	-0.00579	-0.11127
258 FEDSURE	2587.52	0.074472	0.052632	0.022167	0	-0.04132	0.060345	-0.01463	0.133828	-0.02941	-0.05758	-0.04984	-0.02876
259 M-NETSS	2591.69856	0.444444	0	-0.07692	0.010638	-0.04211	-0.01099	0	0.066667	-0.04167	-0.02174	-0.02222	0.045455
260 TEGKOR	2659.32	0.110588	-0.04675	-0.00265	-0.05682	0.060241	0.090909	0.041667	-0.14	0.162791	-0.1	0.053333	-0.00844
261 M-&F	2713.128	0.094118	0	0.027027	-0.05263	0.233333	0.090909	-0.01786	-0.145909	-0.064	-0.03419	-0.02655	0
262 METLIFE	2796.49584	0.175439	-0.05672	-0.11392	0.071429	-0.05	0.114298	0.119048	-0.00709	0.157143	-0.01235	-0.04375	-0.12176
263 PLATE-GL	2998.02195	0.18705	-0.07879	0.019737	-0.07097	-0.04972	0.125926	-0.05921	0.034965	0.084459	-0.06542	-0.1034	-0.02256
264 LIBVEST	3230.2897	0.113924	-0.08023	0.025	0.02439	0.02381	0.083721	-0.04721	0.036036	0.035217	-0.0678	-0.05455	-0.00962
265 AECI	3244.15	0.181818	-0.10577	0.186237	-0.0463	-0.05825	-0.03093	-0.02128	-0.00435	0.05298	-0.03354	0.106291	-0.01961
266 INVSTEC	3270.12	0.071429	0.013889	-0.0137	0.055556	-0.01053	0.005319	0.016086	-0.01583	0.163539	0.018433	0.004525	0.038636
267 IMPERIAL	3300.9886	0.125749	-0.04255	0.023111	-0.04918	-0.06092	0.077111	0.006818	0.040632	0.019306	-0.06545	0.033295	0.003333
268 PEPPOR	3554.11329	0.098901	-0.03	-0.1134	0.023256	-0.09091	0.05	-0.03333	-0.1133	-0.02222	-0.01705	-0.02312	-0.1568
269 PPC	3660.37056	0.039604	-0.12381	-0.04348	-0.04545	-0.12083	0.082192	-0.10759	-0.05319	0.101124	-0.05782	-0.11119	0.02521
270 GENBEL	3667.05	0.139013	-0.03543	0	0.024793	-0.03226	0.15	0.083333	0	0.06689	0.037618	0.003058	0.060698
271 AFROX	3701.78649	0.113333	-0.07186	-0.04839	0.016949	-0.01333	0.068649	0.019108	-0.125	0.071429	0.066667	-0.06219	0.081081
272 TONGAAT	3762.79053	0.064516	-0.04545	-0.06746	0.107021	-0.07699	0.023041	-0.06306	0.033654	0.046512	-0.02222	0.040909	0.000349
273 REUNERT	3874.8177	0.02	-0.13725										

	96MC	1997JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES
1 INDFIN	0.6	0.181818	0	0.192308	0.935484	-0.083333	0.636364	-0.244444	-0.058824	-0.0625	-0.166667	0.2	-0.333333
2 CAPSTAR	3.57786	0	0.066667	0	0.0625	0.388235	2.813559	1	-0.25	-0.259259	0.08	-0.125	-0.111111
3 JIGSAW	4.4316	-0.214286	0	0.127273	-0.177419	0.372549	-0.357143	0	0.222222	0.090909	0.2	-0.027778	0.030303
4 ALUDIE	5.0267	0.05	0.190476	0.2	0.466667	-0.318182	0	-0.066667	0.214286	0.044118	-0.057143	-0.2	-0.2
5 ADONIS	6.0974	0.308333	-0.064935	0	0	-0.194444	0.241379	0.131944	0.5625	-0.36	0.5625	0.075	0.162791
6 LABAT	6.3987	0.025641	0	0.15	-0.043478	-0.045455	-0.238095	0.3125	-0.047619	0	0	0	0
7 VALAUTO	6.6	0	0	0	0	0	0	0	0	0	0	0	0
8 VALCAR	6.6	0	0	0	0	0	0	0	0.02	0.078431	0.272727	0	0
9 SPANJAARD	6.612	-0.136364	0.210526	0.086957	0	-0.036	0.130435	0.25	0.061538	-0.043478	0.151515	0.052632	0
10 PALS	7.3	0.155556	-0.086538	-0.210526	-0.093333	0.205882	-0.146341	-0.128571	0.229508	-0.08	-0.057971	-0.184615	-0.150943
11 CORWIL	7.41741	0	0.4	-0.285714	-0.25	0.066667	0	0.125	-0.1	-0.074074	0	-0.04	0
12 ADVANCED	9.78	0.407407	0.052632	0.325	0.179245	0.176	-0.027211	0.078873	-0.033943	-0.189189	0.033333	-0.158065	0.149425
13 COMPASS	10.12	0.066667	0.015625	-0.061538	0.229508	-0.133333	0	0.076923	-0.071429	-0.076923	0	-0.083333	0.136364
14 CLYDE	10.56	0.083333	-0.076923	0.083333	0	-0.153846	0.022727	-0.090909	-0.1	0.222222	-0.272727	0.2	0.0625
15 INMINS	11.1468	-0.171429	0.586207	0.086957	0.2	0.533333	-0.130435	0.475	0.016949	0.166667	0	0.28	-0.257813
16 RLSPROPS	11.851	-0.078947	0.228571	-0.081395	-0.126582	-0.028986	-0.149254	0.035088	-0.033898	-0.315789	0	-0.076923	0
17 QUICKCO	12.843	0.5	0	0.666667	-0.2	0	0	-0.25	0.333333	0	-0.25	0	0
18 TOLARAM	13.3975	0	-0.384615	0	0.625	-0.461538	0.214286	-0.388235	0.634615	-0.411765	0.68	-0.345238	0.272727
19 NICTUS	13.57785	-0.083333	0	0	0	0.036364	-0.035088	0	0	0	0	0	0
20 TRNPACO	14.3	-0.018182	-0.074074	0	0.14	0.263158	0.111111	0.1875	0	0.157895	0.022727	0.511111	-0.088235
21 LA-GROUP	14.5398	0.148649	0	0.329412	-0.061947	-0.028302	0.165049	0	0.391667	-0.203593	0.203008	-0.2125	0.112698
22 VENTEL	15.1485	0.12	-0.107143	0.2	0.333333	-0.25	0.2	-0.222222	0.214286	-0.117647	-0.266667	-0.272727	0.25
23 WINBEL	15.6333	0.484848	0.591837	-0.051282	-0.310811	0.666667	-0.058824	0.325	-0.150943	0.222222	0	0.171429	-0.163415
24 YORKCOR	16.16824	0	-0.057143	0.106061	0.438356	0.190476	0.016	-0.251699	0.052632	-0.24	-0.111842	0.666667	0.311111
25 VESTCOR	17.90551	0.27907	-0.509091	0.925926	0.442308	0.333333	-0.38	0.548387	0.25	-0.375	-0.106667	-0.208955	-0.075472
26 GEN-OTIC	17.958	0.086957	0.01	-0.1	-0.044444	0.011628	-0.034483	0.02381	-0.011628	0.047059	-0.093182	0.002506	0
27 MDMGROW	18.02										-0.089231	-0.173554	0.1
28 SMGHOLD	18.1775	-0.1	0.055556	-0.021053	-0.043011	-0.157303	0.28	0.125	0.064815	-0.052632	0	-0.166667	-0.111111
29 ALEXWYT	18.30625	-0.09434	0.25	-0.133333	0.192308	-0.048387	-0.050847	-0.035714	-0.018519	-0.056604	-0.1	-0.011111	-0.089888
30 AUTOQIP	18.45816	-0.03	-0.072165	0	0.055556	0.263158	-0.141667	0.116505	0.288957	-0.006757	-0.027586	0.205674	0.029412
31 BRANDCO	19.261	0	-0.15	0	0.078431	0.363636	0.08	0.061728	0.011628	-0.126437	0.019737	-0.032258	0
32 S&JLAND	21.04	0.017241	0	0.135593	-0.074627	-0.096774	-0.196429	0.111111	-0.16	-0.011905	-0.144578	0	-0.042254
33 PASDEC	21.26632	-0.081081	0.029412	0.057143	-0.081081	0.705882	0.362069	0.037975	-0.02439	0.0375	-0.216867	-0.323077	-0.272727
34 EUREKA	21.6	1.617188	-0.253731	-0.12	-0.063636	-0.07767	-0.052632	-0.094444	0.092025	-0.033708	-0.011628	0.294118	-0.113636
35 GUBINGS	22.341	0.25	-0.1	0.111111	0.03	0.067961	0.090909	0	0.066667	0.071429	-0.083333	0	-0.031818
36 ARIES	22.77	0	0	0.068182	0	0	0	0	0.036364	0	0	0	0
37 CULTEL	22.9425	-0.192308	0.261905	-0.179245	-0.310345	-0.183333	0.163265	0.22807	-0.242857	-0.226415	-0.02439	0.05625	0
38 RARECO	25.9792	0.146667	-0.302326	0.166667	-0.214286	0.181818	-0.076923	0.083333	0	-0.138462	0.026786	-0.217391	-0.011111
39 GLODINA	26.08368	-0.025	-0.025841	-0.065789	0.056338	0.333333	0.04	-0.134615	0	-0.166667	0.04	0.051282	-0.146341
40 GUNDEL	26.18434					-0.166667	0	0	0.05	0	-0.057143	0.010101	-0.258
41 ANBEECO	26.36128	-0.270833	-0.058824	-0.0375	0.480519	0.263158	0.222222	-0.261364	-0.338462	0.127907	0.155567	-0.173913	0.105263
42 WINHOLD	26.44008	0.083333	0.724138	0.2	-0.241667	0.252747	0.087719	0.048387	0.076923	-0.3	0.020408	0.03	-0.18932
43 INTEGREAR	26.75176	-0.235294	-0.123077	-0.035088	-0.227273	-0.164706	-0.239437	0.148148	-0.274194	0.288889	-0.224138	-0.088889	0.341463
44 PACIFIC	30.08016	0.085714	-0.118421	-0.089552	-0.016393	0	-0.266667	-0.045455	0	-0.047619	0	0.175	-0.2
45 SERVEST	31.2436	0.285714	0.027778	-0.108108	-0.030303	0.09375	0.148857	0	0	-0.05	-0.618421	-0.496552	-0.383562
46 WBHOLD	32.524	0.138889	-0.02439	0.0625	-0.134118	-0.211268	0.021429	-0.020979	-0.035714	0.037037	-0.107143	0.028	0.050584
47 AMLAC	32.55	-0.075	0	0.040541	0.012987	-0.076923	0.152778	-0.156627	0.071429	-0.146667	-0.21875	-0.1	0.533333
48 TIGON	35	0.142857	-0.0625	-0.1	0.022222	-0.362319	-0.204545	-0.285714	0.32	0.287879	0.352941	0.086957	0
49 NINIAN	35.53	-0.052632	0	0.75	-0.266667	-0.045455	-0.07619	0.061856	-0.019417	-0.173267	0.036585	0.088824	0.022222
50 MARSHALLS	36.405	0	0.031467	0	0	0.166667	0	-0.128571	0.013672	0	0	0	0
51 ADVSOURCE	36.6079	0.411765	-0.083333	-0.181818	-0.222222	0.685714	-0.021186	-0.035088	-0.036364	0.226415	-0.115385	-0.130435	-0.25
52 OAKFLDS	38	-0.176471	0.190476	-0.24	0.210526	-0.130435	0.125	0.555556	-0.357143	0	0.311111	-0.084746	0
53 SONDOR	38.4	-0.026667	0.041096	0.052632	0	0.0625	-0.082353	0.00641	-0.025974	0.053333	-0.082278	-0.182759	-0.078261
54 GLOPVT	40.309	-0.205128	0.048387	0.076923	-0.071429	0.307692	-0.164706	0.056338	0	0.533333	-0.043478	0.022727	-0.022222
55 BOLWEAR	42	0.2	-0.210526	0.222222	0	0.036364	0.188596	0.153846	-0.133333	-0.076923	0.041667	0.04	-0.157692
56 STRAND	42.0784	-0.333333	0.083333	0.384615	-0.133333	-0.115385	0.086957	-0.253333	-0.017857	0	0.109091	0.114754	0.323529
57 CEMENCO	43.59624	-0.090909	-0.1	-0.111111	-0.1	0.013889	0.013699	0.054054	0.025641	-0.025	-0.012821	0	-0.298701
58 SHOREDITS	46.42758	-0.661538	0	0	0	0	0	0	0	0	0	0	0
59 KGMEDIA	47.97825												-0.046512
60 CULLINAN	48.25318	-0.176471	-0.151786	-0.210526	0.253333	-0.042553	-0.188889	0.068493	-0.141026	-0.552239	-0.066667	0.107143	0.040323
61 ROADCOR	52.29	-0.009346	-0.056604	0	-0.12	0.306818	-0.086957	-0.142857	-0.111111	0.05	0.071429	-0.055556	-0.176471
62 SPICER	53.05561	0.5	-0.127451	-0.202247	0.028169	-0.232877	-0.107143	-0.32	-0.147059	-0.37931	0.222222	-0.181818	0
63 PSG	54.98136	0.104651	-0.010526	0.276596	0.133333	0.25	0.147059	0.292308	-0.015873	-0.129032	-0.069444	0.074627	-0.037037
64 FUSION	56.34	0	0	0	0	0	0.1	0.009091	0	0	-0.279279	0	0
65 LASER	56.7	0.047619	0.136364	-0.008	0.120968	0.007194	0.035714	0.362069	0.063291	0.011905	-0.011765	0.061905	-0.008969
66 ARCAV	57.104	0.24	-0.135484	0.029851	0.130543	-0.214286	-0.045455	0	0.019048	-0.065421	0.06515	0	0.069149
67 CONFED	57.596	0.029412	0.014286	0.014085	0.019722	0	0	0.041667	0.066667	0	0.00475	0	0
68 LITECH	59.16609	0.1375	0.186813	-0.009259	-0.009346	-0.111321	0.075269	0.06	-0.113208	-0.021277	0.021739	-0.168085	0.064935
69 HARWILL	62.307	0.066667	0	0.160714	-0.038462	0.04	-0.038462	0.04	0	0.038462	0.111111	0.053333	0.012658
70 PUTPROP	64.20839	-0.022222	0.147727	-0.059406	0.036842	0.021053	-0.030928	0.06383	0.01	0.039604	0.071429	-0.014286	-0.009662
71 FORIM	64.56335	0.242857	0.011494	0.215909	0.009346	-0.027778	0	0.107143	-0.095652	0	-0.048077	-0.469697	0.142857
72 THEBEFIN	64.60675	0.406977	0.239669	0.066667	0.25	0.5249	0.503311	0	-0.066079	-0.056604	-0.115	-0.005876	-0.057143
73 CARGO	65.8	-0.190476	-0.023529	-0.060241	0.089744	-0.176471	0.085714	0	-0.04	-0.236111	0.454545	-0.1125	0.084507
74 UNIHOLD	69.2535	0.614458	0.343284	0.059722	-0.093333	0.147059	0.25641	0.04898	-0.075875	-0.073684	-0.289655	0.116505	-0.130435
75 PRIMA	70.5483	-0.171875	0.037736	0	0.019608	-0.019231	0.039216	-0.056604	0.08	-0.023148	0.145833	0.072727	0.176471
76 FORTUNE	71.4765	0.315789	0.08	-0.074074	-0.0244	0.016529	0.056911	0.115385	-0.206897	0.086957	0.3104	-0.147692	0.263538
77 SASFIN	71.54277	0.233333	0.081081	0.03125	0.054545	0.264368	0.272727	0.357143	0.02631				

93 CASHBIL	98.70625	-0.105882	0.25	-0.136842	-0.04878	-0.025641	0	0.013158	0.116883	-0.162791	0.166667	-0.166667	-0.171429
94 SASANI	102.01212		0.322034	0	-0.141026	-0.014925	-0.212121	-0.163462	0.022989	-0.122472	-0.168831	-0.1875	0.057692
95 ROMATEX	102.376	-0.081633	0.051852	0.073944	-0.081967	-0.085714	0.015625	-0.069321	0.487603	-0.277778	0	-0.015385	-0.023438
96 BASREAD	103.588	0.171717	0.077586	0.184	0.216216	0.027778	0.097222	0.097222	0.202532	-0.105263	-0.129412	0.013514	-0.04
97 STEERS	104.139	0.263736	0.034783	-0.07563	0.036364	0.096491	-0.065041	0.034783	0.042017	-0.209677	-0.035714	-0.216216	0.034483
98 KAIROS	106.08192	-0.076923	-0.183333	-0.040816	-0.021277	-0.347826	-0.1	-0.037037	0.038462	-0.259259	0.3	-0.076923	-0.166667
99 SEARTEC	107.54372	-0.026667	-0.013699	0.055556	-0.092105	-0.057971	0.276923	-0.156627	0.1	-0.103896	0.028986	0.021127	-0.142857
100 COASTAL	110.79124	0.052632	-0.05	0	0.223684	0.086022	0.188119	0.183333	0.133803	-0.099379	0.048276	-0.078947	0
101 RETCORP	112.34	0.25	-0.074074	0.12	-0.014286	0.014493	0	0.142857	0.15625	-0.081081	0.020588	0.051873	0.013699
102 RENTSUR	113.28	0.296296	0.196429	0.059701	0.132394	0.184539	0.094737	0.125	-0.059829	-0.163636	0.022609	-0.026738	0.208791
103 COATES	114.3519	0.181818	-0.166667	-0.2	0.134615	0	-0.125874	0.54	-0.142857	-0.083333	0	0.266667	-0.078947
104 PUTCO	115.47725	-0.066667	-0.035714	0.022222	-0.068841	0.08	-0.222222	0.047619	-0.045455	-0.047619	0.015	-0.125	-0.057143
105 SPESCOM	117.4343	-0.023256	0.119048	-0.06383	0.030303	0.161765	0.088608	-0.069767	-0.025	-0.076923	-0.069444	0.014925	-0.039706
106 PREMIUM	123.535	-0.070175	0.132075	-0.066667	-0.001786	-0.038462	-0.1	0.1	-0.040404	0	0.012632	-0.101124	-0.0125
107 GROWPNT	123.7204	0.258741	0.013889	0.054795	-0.142857	0.272727	-0.052632	-0.011111	0.05618	-0.042553	0.055556	0.047895	0
108 BATEPRO	128.4045	0.025	-0.02439	-0.1075	0.028571	-0.25	0.037037	-0.021429	-0.072983	0.200787	0.262295	0.054054	0
109 DAEWO	131.064	0.00885	-0.078947	-0.171429	-0.16092	-0.027397	0.338028	0.473684	-0.428571	-0.275	0.146552	-0.285714	-0.105263
110 JASCO	131.91963	-0.015038	-0.198473	-0.019048	0.067961	-0.154545	0.261364	0.509009	0.074627	-0.166667	0.04	-0.294872	0
111 STANTRN	132.31837	0.095238	0.304348	0.05	-0.603175	0	3.64	0.034483	-0.066667	-0.107143	0.05	0.028571	-0.037037
112 AUTOPGE	135.33732	0.413333	-0.009434	0.057143	0.036036	0	0.20354	0.029412	-0.057143	-0.015152	0.115385	0.034483	0
113 REX-TRUE	136.7003	-0.029851	-0.046154	-0.177419	-0.058824	-0.104167	0.232558	0.603774	-0.070588	-0.227848	-0.02459	0.029412	-0.101695
114 NEIHOLD	138.8315	-0.05641	0.032609	0	-0.053011	0.085714	0.010526	-0.0625	0	-0.061111	-0.065089	-0.189873	-0.09375
115 RMSPROP	139.111	0.014925	0.147059	0	0.025641	0.02285	0.013158	-0.064935	0.041667	0.08	-0.135802	-0.021171	0.083871
116 SABLE	139.35666	0	0	-0.18125	-0.045802	-0.12	-0.136364	-0.052632	-0.277778	0.692308	-0.226364	-0.113924	-0.142857
117 MGX	140.976	0.1	-0.034965	0.094203	-0.033113	0.09589	0.25	0.05	-0.1	0.031746	-0.025641	0.221053	-0.118534
118 WBHO	143.72169	0.567797	-0.094595	0.164179	0	0.090909	0	0.238095	0.057692	0.016364	0.054455	0.034483	-0.098333
119 NRB	144.66832	0.076923	0.071429	-0.053333	0.098592	-0.230769	0.266667	0.855263	-0.042857	0.089552	-0.090401	-0.091729	-0.166667
120 ALACRITY	144.95373	0.717949	-0.089552	0.112705	-0.089552	0.081967	-0.083333	0.107438	-0.238806	-0.313725	0.042857	-0.178082	-0.025
121 MACMED	145.94972	0	0.2	0.037879	0.094891	0.2	0.130556	0.061728	0.046512	-0.102222	-0.022277	-0.012658	-0.184615
122 ATLAS	146.53016	0.171429	0	0.04878	-0.05814	-0.012346	0.097425	0.097561	-0.044444	-0.011628	0	0.011765	0.128721
123 FURNCAP	147.08772	-0.042105	-0.06044	-0.034503	-0.02439	-0.1875	0.246154	0.209877	0.010204	0.129798	0.045455	-0.013043	-0.008811
124 ARGENT	149.3818	0.152778	0.301205	-0.138889	-0.010753	-0.055556	0.058824	-0.066667	0.071429	-0.266667	0.121212	-0.375	-0.088889
125 MARTPROP	150	-0.02	0	0	0.020408	0.010638	0	0	0	0	0.005263	0	0
126 GROPROP	156	-0.057143	0.090909	-0.111111	0.062938	0.063492	-0.044776	0.046875	0	-0.044776	0.080781	-0.0625	0.033333
127 CROOKES	157.2	-0.00641	-0.096774	0	0	0.107143	-0.036774	-0.006849	-0.103448	-0.038462	0.04	-0.076923	-0.07125
128 ILLTLE	158.75637	0.058824	0.232222	0.118182	-0.02439	0.166667	0.064286	0	0.42349	-0.004739	-0.047619	0.05	-0.02381
129 GOLDREEF	160.6826	-0.022989	0.341176	0.149123	-0.076336	-0.008264	-0.05	0.140351	0.105769	-0.239437	-0.074074	0	-0.175
130 SPURHLD	165.31242	-0.090909	0.146667	0.023256	-0.017045	0.054913	-0.022472	-0.022989	-0.023529	-0.078313	-0.071895	-0.01338	-0.044118
131 KH-PROPS	168.6375	0.012048	0.083333	-0.054945	0.162791	-0.0355	-0.077778	0.084337	0.022222	-0.032609	0.044944	0.042473	0.022222
132 ETINGTN	170.64075	-0.075472	0.010204	0.050505	-0.038462	0.08	0.111111	-0.026167	-0.017544	-0.071429	-0.076923	-0.041667	0.086957
133 SEARDEL	172.48574	0.146341	-0.021277	-0.021739	0.159091	-0.117647	0.111111	0.02	0.088627	-0.110092	0.082474	-0.070238	-0.105263
134 WACO	173.3329	0.041667	-0.248	0.035461	-0.061644	0.021898	-0.007143	0.021583	0.285211	0.150685	0.095238	-0.022222	0.056818
135 SAMRAND	174.10494	-0.202899	-0.054545	0.288462	-0.029851	0	-0.230769	0.1	0.236364	-0.044118	0	0	-0.230769
136 INVICTA	175.65312	0.045652	0	0.084211	-0.029126	0	0.148	0.238938	0.114286	-0.166667	-0.038462	-0.04	-0.005
137 MORIBO	176.81804	0.931818	-0.158824	0.146853	0	-0.146341	0.014286	0.197183	-0.235294	0.015385	0	0.113636	-0.047619
138 METAIR	178.39085	0.125	0.111111	0.05	0.071429	-0.066667	0.047619	-0.095238	-0.026316	-0.043243	-0.067797	0.030303	-0.088235
139 OCTODEC	185.06393	0.013514	0.033333	0	-0.049194	0.111111	-0.053333	0.056338	0.033333	-0.064516	0.018966	-0.014815	-0.022556
140 SUPRGRP	187.28631	0.11	0.276276	0.058824	-0.12	0.010101	0.15125	0.164835	0.080189	-0.082969	-0.058095	-0.029323	0.0625
141 DON	189.32298	-0.090909	-0.365714	-0.171171	0.086957	-0.34	-0.181818	-0.074074	0.14	-0.201754	-0.168813	-0.297297	-0.442308
142 NEWPORT	193.136	0.052632	-0.025	0.064103	0.024602	-0.025316	0.090909	-0.071429	0.051828	0.02439	-0.071429	0.052872	0.147757
143 GSHOLD	196.48832	0.214286	0.058824	-0.056667	-0.047619	-0.1	-0.055556	-0.102941	0.032787	0.016667	-0.047619	-0.116667	-0.10566
144 ENSERVE	198.58492	-0.019048	0.106796	-0.035088	-0.090909	0.06	-0.056604	0.07	-0.233645	0.097561	-0.2	-0.138889	-0.129032
145 DATEATE	202.587	0.136646	0.15847	-0.009434	0.14561	0.191667	0.153846	0.024242	-0.097633	0.016393	0.067768	0.107413	0.106557
146 BATECORP	209.13984	-0.066038	-0.191919	-0.0875	-0.09589	-0.090909	-0.25	0.666667	-0.12	-0.121212	-0.051724	-0.272727	-0.175
147 OXBIDGE	210.48192	0.0625	0.088235	-0.038378	-0.011364	0.017241	0.016949	0.166667	-0.066667	0.040816	0.029412	-0.048544	-0.010204
148 CMH	212.107	0.01	0.059406	-0.065421	0.07	0.201869	0.048387	0	-0.153846	-0.090909	-0.1	0.011111	-0.022222
149 SOVFOOD	220	0	0.111111	-0.05	-0.052632	-0.2	-0.111111	0	0.3125	-0.047619	-0.0025	-0.122807	-0.142857
150 ADCORP	221.41595	0.133333	0.008403	0.148333	-0.131387	0.134454	0.066667	0.166667	0.279762	-0.069767	-0.0125	0.025316	-0.061728
151 NEI-AFR	221.62312	0.125	0.027778	0	-0.027027	0.028571	0	0	-0.005556	-0.022346	-0.114286	-0.067742	-0.307958
152 FRAME	232.37685	-0.078261	-0.103774	-0.045684	-0.1	-0.08642	0.351351	0.05	0.152381	0.094545	0	0	0.023077
153 CBD-FUND	233.28358	0.021505	0	-0.084211	0.091954	-0.003842	0.176471	-0.1	-0.055556	0.011765	0.069767	0.016087	0.029412
154 HOMECHOIC	243	-0.069231	0.239669	-0.02	0.122449	0.080606	0.1	0.220779	0.03617	0.010309	0.040816	0	-0.127451
155 ALEXNDR	243.0285	-0.012346	0.1875	0.026316	0.088718	-0.009901	0.0225	-0.061224	-0.086957	-0.334048	-0.044444	-0.069767	0
156 SPUR	246.88362	-0.067164	0.088	0.029412	-0.05	-0.051128	0.097561	0.111111	-0.073333	-0.122302	-0.139344	0.020952	0.009615
157 AHEALTH	247.55788	-0.011628	-0.058824	-0.08125	0.047619	-0.036818	-0.168836	0.066667	-0.171875	-0.103774	-0.111579	-0.194313	-0.117647
158 NUWORLD	248.0949	0.011429	0.20904	0.037383	0.090909	-0.03125	-0.032258	0.238095	0.030769	0.089552	-0.041096	-0.012393	0.018182
159 CENPROP	250.14123	0.118421	0.08	0.117647	-0.115789	-0.047619	0.0625	0.105882	-0.007553	-0.057471	-0.02439	0.025	-0.085366
160 HYPROP	251.91579	0.026316	-0.059829	0.045455	0.05193	-0.061947	0.037736	0.054545	0.017241	0.051814	-0.068966	0.014815	0.040146
161 RICHWAY	252.89916	-0.066667	0.08631	0.046512	0	-0.044444	0.046512	-0.055556	-0.035294	0.04878	-0.005233	0	0.02
162 KAROS	257.03784	-0.227642	-0.126316	0.313253	-0.238532	-0.084337	-0.197368	0.42623	0	-0.022989	-0.176471	-0.107143	-0.12
163 PANPROP	260.65674	0.114286	0.153846	-0.005556	-0.084337	0.052632	0.0375	0.036145	-0.034884	0.03494	0.05128		

186	PIONEER	355.84296	-0.121951	0.037037	0.071429	0	-0.015875	-0.063636	0.067961	0.036364	-0.017544	0.026786	0.072261	-0.126638
187	CFC	357.12	0.083333	0.153846	0.222222	-0.066727	0.27451	0.076923	0	0.178571	-0.090909	-0.004267	-0.020134	0
188	GROUP-5	358.74696	0.289655	0.069519	0.019	-0.09901	-0.230769	0	0.078571	0.13245	-0.145029	0.020833	-0.183673	-0.166667
189	GRINDROD	366.83501	0.032609	-0.022105	-0.044444	-0.116279	0.039474	-0.139241	0.176471	-0.25	-0.01	-0.068966	-0.203704	0
190	DELHOLD	382.59551	-0.103448	-0.153846	0.095455	0	-0.2	-0.214286	0.163636	-0.023438	-0.2	0.75	-0.057143	0.030303
191	FELTEX	417.413	0.100629	0	0.057143	-0.037838	0.151685	0.02439	0.02381	-0.116279	-0.131579	0.060606	-0.182857	-0.265734
192	PROFURN	418.86328	0.209302	0.134615	0.042373	0.166667	0.035714	0.186207	0.372093	0.110169	-0.083969	0.041667	0.028	-0.058366
193	APEX	474.96564	-0.014706	0.164179	-0.064103	-0.013699	-0.002639	-0.030769	0	-0.047619	0.066667	0	0.02625	0.067797
194	BOUMAT	478.8264	0	-0.021739	-0.2	-0.243056	0.082569	-0.084746	0.175926	-0.023622	-0.241935	0.012766	-0.159664	-0.2125
195	GRAYPROP	493.7166	0.084337	0.201111	-0.019608	-0.11	0.022472	-0.010989	0.144444	0.012864	0	-0.056122	-0.081081	0.058824
196	OCEANA	498.93136	-0.046296	0	-0.048544	-0.040816	-0.042553	0.015556	0.111111	0.05	-0.028571	0.176471	0.033333	0.014677
197	PERSBEL	511.758	0	0.010256	0.147208	-0.078097	-0.038462	0.075	0.093023	-0.148936	-0.1	-0.110444	-0.09375	-0.017241
198	CLINICS	517.06	0.01	0.079208	0.082569	-0.09322	0.084112	-0.017241	-0.219298	-0.078652	-0.073171	-0.131579	-0.193939	-0.06015
199	RA-HOLD	517.7466	0.191489	0.160714	0.061538	0.144928	0.101266	0.172414	0.205882	0.03252	-0.070866	-0.110169	-0.038095	0.009901
200	CAPTALL	519.5	0.241706	0.10687	-0.044828	0.028881	0.280702	0.19589	-0.195402	-0.121429	-0.138211	-0.056604	0.02	-0.019608
201	WESCO	525.29304	-0.046875	-0.094262	0	-0.031674	0.025234	0.009346	0.018519	0	0.040909	-0.004367	-0.087719	0
202	STOCKS	547.1416	0.073171	-0.102273	-0.102564	-0.171429	0.034483	0.066667	0.015625	-0.116923	-0.255319	0.095238	-0.173913	0.052632
203	BOECORP	550.2895	0.144737	0.264368	0.045455	0.191304	0.213985	0.072289	0.033708	0.076087	-0.141414	0	-0.053176	0
204	OMNIA	561.3172	-0.020833	-0.042553	0.111111	0.056667	-0.096774	-0.057143	0.007576	0.165414	-0.032258	-0.16	-0.063492	-0.040678
205	SEAHARV	581.0889	-0.054545	0	-0.086538	-0.157895	0.15	-0.066667	-0.059524	-0.025316	-0.077922	0.084507	-0.064935	-0.033333
206	OZZ	590.31366	-0.021739	-0.007407	0.026119	-0.087273	0.075697	0.074074	0.157241	-0.10303	0.013514	-0.2	-0.052083	-0.245495
207	CHEMSERVE	606.594	0.072917	0.067961	0.090909	0.016667	0.065574	0.153846	-0.02	-0.013537	-0.131944	-0.04	-0.183333	-0.102113
208	LESNET	610.44582	0.063291	-0.083333	0.136104	0.069767	-0.086957	0.119048	0.051064	0.016194	0.003984	-0.087302	0	0
209	TIWHEEL	614.75904	0.011905	0.005882	-0.070175	-0.012579	0.11465	0.2	0.180952	-0.080645	-0.026316	0.013514	-0.071111	-0.019139
210	HUDACO	619.19016	0.106667	0.114217	-0.02439	-0.068182	0.04878	0.023256	-0.029318	0.042857	-0.027397	-0.107981	-0.131579	-0.090909
211	SAAMBOU	649.269	0.034483	0.175	0.078014	-0.019737	0.436242	0.061121	-0.035398	0.009174	-0.068182	0.004878	0.029126	0.041038
212	DELTA	653.53452	-0.037037	-0.053846	0.306504	0	0.139241	0.166667	-0.014286	0.19058	-0.171429	-0.105911	0.046832	-0.007895
213	INTRUST	665.49752	0	0.121429	0	-0.082803	0.052778	0.186667	0.016854	0.01105	-0.027322	-0.011236	-0.147727	0.16
214	RAINBOW	678.04	0.288889	-0.181034	0.136842	-0.074074	-0.2	0.1375	-0.252747	0.058824	-0.027778	-0.028571	-0.279412	-0.571429
215	DUNLOP	682.4974	0.098039	-0.035714	0	0.02963	-0.132075	-0.021739	-0.133333	-0.230769	-0.133333	0.04	-0.280769	-0.197861
216	GRINTEC	696.62322	-0.098901	-0.097561	-0.108108	-0.114242	0.224138	-0.056338	0.074627	-0.083333	0.046061	-0.582355	-0.183099	-0.267241
217	DELORP	743.71284	0.013158	-0.207792	0.152459	0.029412	-0.228571	-0.251852	0.257426	-0.141732	0.12844	0.382114	-0.102941	0.016393
218	KTL	747.55911	-0.080645	-0.140351	-0.040816	-0.259574	0.15942	0.1875	-0.157895	0.1875	0.013684	-0.584211	-0.417722	-0.156522
219	LENCO	749.84904	-0.030769	-0.126984	-0.036364	0.132075	0.033333	0.112903	-0.119403	-0.076271	-0.194495	-0.009112	-0.16092	0.09589
220	KVV-BEL	764.4	0.010101	0.114	-0.004545	0.041096	0.048246	-0.016736	-0.06383	0.018182	-0.032924	-0.047619	-0.1	-0.097222
221	NUCLICKS	768.74224	0.027778	0.162162	-0.046512	0.243902	-0.011765	-0.02	0.15102	0.010638	0.059649	0.051325	-0.103175	0.053097
222	METCOR	785.55568	0.047619	-0.090909	-0.02	-0.081633	0.066667	0.18375	-0.026786	-0.082569	0.13	-0.026549	-0.210909	-0.227419
223	DALYS	793.01376	0.03869	0.193016	0.021501	-0.051778	0.072808	0.084662	0.156265	-0.040585	0.029312	-0.097191	0.068917	0.007568
224	CITYLDG	877.09072	-0.041322	0.034698	0	-0.202703	0.186441	-0.019048	-0.109951	-0.166667	0.05	-0.063492	-0.057627	0
225	MEDCLIN	879.18742	-0.022801	0.006667	0.076159	0.015385	-0.069697	-0.003583	-0.089404	-0.118182	0.020619	-0.131313	-0.05814	0.035309
226	FINTECH	889.72585	-0.091304	0.036683	-0.030769	0.238095	0.030128	0.076433	0.076923	-0.043956	0.034483	-0.033333	0.011494	-0.002273
227	LANGEBOEG	905.6	0.009091	-0.090909	0	0	-0.090909	-0.199	-0.151899	-0.029851	0	0	-0.123077	-0.042982
228	CORNICK	933.44156	-0.029412	0.090909	-0.083333	0.121212	0.189189	0.009091	0.148849	0.039216	-0.030189	0.124514	0.134948	-0.079268
229	VENTRON	947.08088	-0.033333	0.117241	0.203704	0.128205	0.091818	0.336207	0.016129	-0.047619	0.05	-0.079365	-0.048276	0.086957
230	PIKWIK	990.29	0.083333	0.042735	0.04918	0.078125	0.08471	0.034483	0.2	-0.041667	-0.101449	0.072065	0.030303	-0.094118
231	BOE	1008.19225	0.05	0.142857	0.166667	0.160714	0.156923	0.016	-0.015748	0.1	-0.066667	-0.051948	0.137671	0.018182
232	TOYOTA	1057.368	-0.069231	-0.020661	0.005907	0.12069	0.057692	0.043636	0.080139	0.007742	0	-0.032258	-0.083333	-0.081818
233	AFILFE	1074.3712	0.135714	0.031447	0.128049	0.27027	0.200426	0.107143	0.129032	-0.057143	0.030303	-0.029412	0.165909	0.037859
234	GARDIAN	1089.13728	0.090909	0.008929	0.020619	0	0.004425	0.066079	0.008264	0.040984	0	0	0	0.04
235	SFW	1099	0.079646	0.022131	0.016129	0.079365	-0.080882	-0.112	-0.090909	-0.11	0.035955	0.011111	-0.010989	0
236	I-&J	1101.49005	0.0125	-0.061728	0	0.026316	-0.115385	-0.115942	-0.022951	0.02349	0.019672	-0.3	0.095238	0.043478
237	TEMPORA	1102.1406	0.062227	0.09417	0.02459	-0.044	0.041841	0.084337	0.086222	-0.051724	-0.023636	-0.05959	-0.049505	0.072917
238	ALTECH	1103.2066	0.065217	0.122449	0.1	0.173554	0.208451	0.109756	0.483516	-0.140741	0.060345	-0.065041	0.052174	0.057851
239	ALTRON	1118.04094	0.1	0.018182	0.267857	0.084507	0.049351	0.133758	0.213483	-0.125	0	-0.100529	0	0.117647
240	NAIL	1122.5676	0.241379	0.027778	0.013514	0.08	-0.012346	0	-0.05	-0.065789	0.028169	0.09863	0.209476	0.092784
241	UNITRAN	1154.81306	-0.025532	0.143231	0.019231	-0.056604	-0.124	-0.09589	0.055556	-0.12201	-0.083333	-0.030303	-0.015625	0.012698
242	SILTEK	1158.17556	-0.283333	0.046512	-0.075556	-0.050962	0.061381	-0.084337	0.126316	0.046729	-0.022768	-0.674419	-0.107143	-0.04
243	ENERGY	1195.07232	0.242424	0.012195	-0.012048	-0.085366	0.136	0.103286	0.031915	-0.010309	0.125	-0.064815	-0.089109	0.119565
244	VOLTECH	1208.88012	0.026549	0.060345	0.020325	-0.032258	-0.041667	0.113043	0.152344	-0.023729	-0.048611	0.025547	-0.039855	-0.056604
245	SA-EAGLE	1225.1871	0.071795	0.129187	-0.029661	0.080357	-0.008264	0.108333	0.105263	0.076531	-0.044586	0	0.004	0.062417
246	GLOHOLD	1232.0478	-0.102273	-0.316456	-0.185185	-0.159091	-0.064865	-0.16763	-0.180556	-0.118644	-0.038462	-0.16	-0.619048	0.125
247	PRIME	1265.42999	0.273306	0.106383	0.057692	0.130909	0.051447	-0.039755	-0.146497	0.13569	-0.05124	-0.038462	-0.098182	-0.020161
248	MR PRICE	1299.936	-0.105263	-0.229412	0.240458	0.092308	-0.166197	0.346959	0.113924	-0.045455	-0.071429	0	-0.148205	0.060606
249	ILLOVO	1374.84428	0.035294	0.022727	0.022222	0.005435	-0.027027	0.171667	0.004808	-0.121531	-0.074074	0.070588	-0.010989	-0.053889
250	M-NETSS	1377.2059	0.032609	-0.063158	0.27191	-0.045045	-0.009434	-0.07619	0.020619	-0.070707	0.086957	-0.06	-0.074468	-0.045977
251	HIVELD	1420.28112	0.283784	0.068421	-0.019704	-0.005076	-0.056122	-0.081081	-0.058824	0.171875	-0.099462	-0.044776	-0.096875	-0.259516
252	ELLERINE	1469.45755	0.139423	0.118143	-0.018868	0.076923	0.039643	0.215228	0.160991	0.037333	-0.048843	-0.013514	-0.063233	-0.071006
253	CTP	1513.5882	0.022026	-0.051724	0.036364	-0.008772	-0.061947	-0.						

279 METCASH	3088.79751	0.105769	0.028986	0.098592	0.102564	-0.104651	0.049351	0.275	-0.078431	-0.010638	0	-0.021505	-0.058022
280 REUNERT	3103.89	-0.114865	-0.083969	0.295833	-0.093248	0.071631	0.036667	0.028939	-0.03125	-0.112903	-0.309091	-0.031579	-0.11413
281 GENSEC	3132.78042	0.140257	0.103286	-0.038298	-0.048673	0.088372	0.217949	-0.042105	-0.096703	-0.053279	-0.099567	-0.076923	-0.104167
282 TRENCOR	3366.74433	0.012766	-0.067227	0.086486	-0.166667	0	-0.05	-0.065789	0.15493	-0.009268	0.0075	-0.002481	-0.004975
283 TEGKOR	3602.2	0.021277	0.07535	-0.019608	0.04	-0.076923	0.020833	0.020408	-0.008	-0.12421	-0.034884	-0.00241	-0.130435
284 FIT	3603.246	-0.045	0.065445	-0.020393	-0.022901	0.059896	0.019656	0.048193	-0.126437	0.001316	0.005291	0.184211	0.066667
285 FIRSTSTRAND	3659.39145	0.025974	0.341772	0.136981	-0.026667	0.003425	0.197952	0.045584	-0.059946	-0.014493	0.045	0.043972	0.046196
286 RMBH	3735.1584	0.093525	0.263158	0.055521	0.143564	-0.060606	0.203704	0.023077	-0.011278	-0.079848	0.15314	-0.025271	0.014815
287 AECI	3747.9	-0.04	-0.066667	0.167411	0.039216	-0.083019	0.111111	0.027778	-0.08018	-0.029703	-0.153061	-0.031325	-0.243781
288 KERSAF	3761.39918	0.10935	-0.028571	0.053824	-0.144286	-0.088481	-0.065934	0.215686	0.314516	-0.126626	0	-0.15942	-0.068966
289 DIDATA	3967.81872	0.103571	-0.158576	0.115385	0.034483	-0.003333	0.204013	0.005556	0.10221	-0.022556	0.025641	0.05	0
290 PEPKOR	3975.75061	0.192982	0.147059	0.128205	0	0.113638	0.081633	0.122642	0.058824	0.034921	-0.08589	0.006711	-0.166667
291 SISA	4012.55517	-0.253333	0.071429	0.035	-0.050847	-0.071429	-0.015385	0.054688	0.111111	0.001667	-0.055944	-0.259259	0
292 NASPERS	4188.21772	-0.091014	0.064639	0.095238	-0.076087	0.056471	0.163697	0.018182	-0.018868	-0.048077	-0.070707	-0.130435	0
293 POLIFIN	4284.5	0.076923	0.035714	-0.050575	-0.017199	0.025	0.036585	-0.002353	0.082547	0.040089	-0.036403	-0.111111	-0.125
294 AFROX	4418.89201	-0.046875	0.088525	-0.003012	-0.060606	-0.030323	-0.040268	0.143357	-0.229358	0.02381	0.00969	0.023438	0
295 MIHH	4442.54536	-0.082687	-0.070423	0.109091	-0.180328	0.086667	0.110429	0.005525	-0.093407	-0.157576	0.115108	-0.064516	-0.034483
296 JOHNCOM	4531.69704	-0.05125	0.041322	0.079365	0	-0.022059	0.075188	0.01958	0.055172	-0.062092	-0.135889	0.008065	-0.01696
297 M-&F	4536.635	0.040909	0.074236	0.143089	-0.128571	-0.069672	0.0837	0.138211	-0.032143	-0.01845	-0.06015	-0.04	0.041667
298 LIBVEST	4952.5161	0.009709	0.087019	-0.035874	0.027907	0.040724	-0.017391	0.095133	-0.070707	0.022174	-0.096774	-0.047619	0.1125
299 INVSTEC	4988.12596	0.076586	0.138211	-0.014286	0.003623	0.180505	0.110092	0.046832	-0.101316	0.033675	0.05949	0.033155	-0.031056
300 METLIFE	5015.09009	0.274096	0.049645	0.058559	-0.068085	-0.018265	0.028488	0.031891	0.103753	0.03	0.019417	0.190476	0.1084
301 PREM-GRP	5366.5998	0.059322	0.112903	-0.057971	0.061538	0.014493	-0.057143	0.07803	-0.014286	-0.101449	-0.145161	-0.018868	0.019231
302 ADCOCK	5468.24551	0.045	0.100478	-0.043478	-0.027273	0.011682	-0.018605	0.028436	0.063415	-0.087156	-0.005025	0.028788	-0.0125
303 TONGAAT	5515.74474	0.105727	0.119522	-0.003559	0.039286	0.017182	0.101081	-0.006231	-0.109718	-0.010563	-0.067616	-0.007634	-0.036615
304 GENBEL	5814.72	0.187879	0.040816	-0.009804	0.02	-0.014706	0.174129	0.029681	0	-0.031447	-0.038961	-0.11036	0.03038
305 FOSCHINI	5925.946	-0.041801	0.161074	-0.046243	0.036364	-0.210526	0.051852	0.172535	-0.015015	-0.079268	-0.019868	-0.128378	0.162791
306 PLATE-GL	6072.41208	-0.092308	-0.016949	-0.064655	0.013825	0.044	0.141593	-0.042636	0.044534	0.007752	0.023077	-0.206842	-0.104808
307 M&R-HLD	6106.9	0.115385	-0.137931	0.07	0.307944	-0.205776	-0.031818	0.15493	0.020325	-0.024701	-0.243697	-0.054444	-0.13631
308 WOOLTRU	6328.35	-0.005405	0.247283	-0.005664	-0.011062	-0.026846	0.186207	0.027132	-0.018868	0	-0.325385	-0.04058	-0.012085
309 CGS-FOOD	6390.09	0.003344	0.12	0.035714	-0.025862	-0.014749	0.037605	-0.017442	-0.088757	-0.084416	-0.021277	0.030435	0.004079
310 SAPP	6518.336	-0.00119	-0.115152	-0.058904	0.126638	0.059432	0	0.164634	-0.091099	-0.145161	-0.177898	-0.109836	-0.097606
311 MALBAK	6580.86	0.026829	0.026128	0.018519	-0.018182	-0.091667	0.100917	-0.111111	0.00625	0.055901	-0.011765	-0.199288	0.076667
312 A-V-I	6970.104	-0.143192	0.013699	0.067568	-0.002532	-0.205584	0.060703	0.009036	0.029851	-0.078261	-0.282051	-0.241071	0.058824
313 SAFREN	7047.054	0.038462	0.103704	-0.053272	0.054513	0.023729	-0.069536	-0.010676	0.028777	-0.041958	0.003193	-0.029026	-0.137898
314 IMPERIAL	7198.18106	0.124031	0.1133	-0.019823	0.072727	-0.063559	0.167421	-0.050388	0.012245	0.008065	-0.043548	0.023609	-0.069193
315 ISCOR	8040.48	0.062874	-0.034648	0.058824	-0.144444	-0.016234	-0.009901	0.1	-0.124242	0.043253	-0.158249	-0.152	-0.320755
316 LIBSIL	8195.15	0.061818	0.058904	0.003279	0.104575	-0.029586	0.085366	0.036517	-0.062331	-0.056647	-0.068323	0.113333	-0.01497
317 EDCON	8406.339	0.037129	0.097852	0.043478	-0.04375	-0.069281	0.128571	0.126582	-0.06367	-0.04	-0.09	-0.160531	-0.087912
318 JOHNNIC	8478.513	0.019512	0.105263	0.033939	0.004202	-0.083682	0.073059	0.12766	-0.071698	-0.003252	-0.107438	-0.022222	-0.018939
319 BARWORLD	8863.416	0.115108	0.016129	0.038095	-0.001019	-0.035714	0.052063	0.205674	-0.071429	-0.036199	-0.089202	-0.049485	-0.085033
320 REMBR-BEH	9097.2	-0.012346	0.119689	0	-0.025806	-0.039735	0.034483	0.025	-0.065041	-0.055642	-0.070632	-0.032	-0.008264
321 TIGBRANDS	9309.15	0.109375	0.059859	0.036545	-0.003205	-0.022508	0.059474	-0.003125	-0.122257	-0.014286	-0.021739	-0.007407	0.018209
322 NAMPAK	10020.992	-0.032698	0.084507	-0.049351	0.043716	-0.078534	0.1275	-0.050761	0.016043	-0.084211	-0.137931	0.066667	-0.070563
323 CGSMITH	11073.12	0.02407	0.111111	0.019231	-0.030189	-0.066148	0.062625	0.031621	-0.082375	-0.060543	-0.066667	0	-0.028
324 BEVCON	12147.682	-0.012739	0.135484	0.022727	-0.055556	-0.012288	0.09697	0	-0.046961	-0.02029	-0.112426	-0.000289	0.107383
325 ABSA	12673.50426	0.055102	0.102515	-0.017544	0.046429	-0.05802	0.195652	0.072197	-0.127507	0.042693	-0.102362	0.049123	-0.052676
326 NEDCOR	13764.52	-0.044776	-0.041667	0.092391	0.004975	0.094653	-0.018182	0.137037	0.172638	0.031944	-0.030956	-0.041667	-0.069275
327 LIB-HOLD	15175.407	-0.012579	0.112038	-0.043605	-0.006079	0.058104	-0.046243	0.180303	-0.02439	-0.053684	-0.098592	0.03125	0.015152
328 VENFIN	19136.52	0.029869	0.078292	0.027174	-0.009524	-0.038462	0.075556	-0.039256	-0.023656	-0.063037	-0.063981	-0.056962	-0.04698
329 SBIC	20436	0.024793	-0.002796	-0.008219	0.129834	-0.022005	0.115	-0.022422	-0.030459	-0.011905	-0.016867	0.039216	0.014151
330 SASOL	27798.3	-0.058559	-0.07177	-0.012371	0.206349	-0.039474	0.086758	-0.071429	0.131222	0.04112	-0.097276	-0.158621	0.045082
331 LIBERTY	28776.506	0.025641	0.09625	-0.044316	0.002016	0.006036	-0.016	0.182927	-0.006873	-0.047197	-0.117647	0.025	0.01626
332 SABPLC	39643.5	0.018824	0.105246	0.044776	-0.064286	-0.025038	0.109482	0.064637	-0.050594	-0.039079	-0.056492	-0.068966	0.010101
MARKET FACTOR	1997	0.049884	0.032298	0.029745	0.003721	0.017904	0.059193	0.062761	-0.001037	-0.04336	-0.027388	-0.0356	-0.030708

97MC	1998JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES	
1 INDFIN	1.24	0.125	0	0.111111	0.4	0.071429	-0.12	-0.015152	-0.153846	-0.436364	0.612903	-0.4	0.666667
2 ALUDIE	4.16498	0.176471	0.275	0.45098	0.283784	0.126316	-0.205607	0.341176	-0.254386	0.082353	-0.119565	0.061728	-0.186047
3 ADONIS	6.2392	-0.2	0.04	-0.076923	0.5	-0.333333	0.083333	0.946154	-0.2	0	0	-0.5	0.2
4 PALS	6.8	0.555556	-0.228571	0.018519	0.090909	-0.166667	0.1	0.272727	-0.142857	0.083333	0.153846	-0.066667	0.071429
5 JIGSAW	7.97688	-0.142857	0.5	0.733333	-0.038462	0.216667	-0.111111	-0.0625	0.066667	-0.0625	-0.033333	0	-0.013793
6 VALAUTO	8.25	-0.1	0	0	0	0	-0.111111	0.1	0	-0.090909	0	0	0
7 VALCAR	8.25	0	-0.042857	-0.179104	-0.090909	0	-0.02	0	-0.183673	0	0	0	0
8 LABAT	8.37648	-0.08	-0.173913	-0.105263	0.117647	0	1.236842	0.105882	-0.117021	-0.084337	-0.078947	0.085714	0.210526
9 TOLARAM	8.621	-0.214286	0	-0.090909	-0.04	-0.25	0.25	0.222222	-0.309091	0.026316	0	-0.358974	0.2
10 NICTUS	9.0519	0	0	0	0.272727	-0.071429	0.076923	-0.142857	-0.008333	-0.07563	-0.090909	-0.05	0
11 VENDEL	10.099	0.2	-0.25	0.666667	-0.233333	0.478261	-0.147059	-0.206897	-0.130435	0.1	0.018182	-0.05	0
12 CORWIL	10.34348	-0.166667	0	-0.083333	-0.090909	-0.12	0.136364	0	0	0.1	0	0	-0.111111
13 CLYDE	10.384	0.078431	-0.181818	0.111111	0.1	0.818182	-0.0375	-0.2	-0.210526	-0.166667	-0.2	0.075	0
14 IOTA	10.4	0	0	0	-0.142132	-0.100592	-0.125	-0.511278	-0.230769	0.6	-0.275	-0.072414	0
15 COMPASS	10.648	0	-0.04	0.166667	0.15	0.213665	-0.036145	0	0	-0.0625	-0.133333	0	0
16 TRNPACO	12.54	-0.064516	0.206897	0.257143	0.022727	0.022222	-0.043478	-0.093182	-0.122807	-0.142857	-0.333333	-0.255	0.161074
17 SPANJAARD	12.654	0.025	0.036585	-0.011765	-0.047619	0.03	0.025	0	0.097561	-0.011111	-0.146067	0	0
18 ANBEECO	14.978	-0.109524	-0.033333	0.37931	0.016667	-0.147541	0.057692	0.004545	-0.158879	-0.244444	0.029412	-0.085714	-0.375
19 SPICER	15.60672	-0.055556	-0.294118	0.666667	0.978261	0.906593	-0.123919	0.069079	-0.541538	-0.268456	0.091743	0.260504	0.006667
20 STRAND	15.92968	-0.111111	0	0	-0.0625	0.04	-0.294872	0.327273	-0.315068	0.06	-0.075472	0.122449	-0.309091
21 UNIGRO	15.9921	0	0	0	0	0	0	0	0	0	-0.292929	-0.285714	-0.3
22 CORPCAP	16.5	0	0	0	0	0	0	0	0	0	-0.292333	0.226415	-0.023077
23 QUICKCO	17.4096	0	-0.333333	0.5	-0.333333	0	0	0	0.5	0	-0.333333	0	0
24 INTEGREAR	20.01516	0.363636	-0.186667	0.377049	-0.119048	-0.310811	-0.137255	0.136364	-0.16	-0.047619	0	-0.125	-0.085714
25 AMLAC	20.58	-0.347826	-0.111111	0.175	-0.223404	0.013699	-0.243243	0.107143	-0.274194	-0.222222	0.714286	-0.616667	2.26087
26 ALEXWYT	21.025	-0.012346	-0.25	-0.15	0.470588	-0.2	-0.216667	0.06383	-0.12	0	0	0	-0.022727
27 PACIFIC	21.14112	0.223404	-0.152174	-0.082051	-0.441341	0.1	-0.090909	0	0	-0.04	0	0	-0.375
28 PASDEC	21.26632	1.34375	-0.253333	-0.232143	0.395349	-0.166667	0.1	0.127273	-0.354839	-0.125	0.285714	-0.111111	-0.05
29 ZELTIS	21.735	0	0	0	0	0	0	0	0	0	0	0	0
30 BOLWEAR	22.2	0.238095	-0.076923	0.083333	0.153846	0.066667	-0.19375	0.241667	0	-0.194631	-0.25	0	-0.344444
31 YORKCOR	22.97592	-0.118644	-0.230769	0.3	0.096154	-0.111111	-0.166667	-0.255	-0.127517	-0.153846	0	0	0.090909
32 AUTOQIP	23.18257	-0.062857	0.067073	0.057143	0.054054	0.166667	-0.043956	-0.009195	-0.303944	-0.083333	0.153846	0	0
33 CAPSTAR	23.33254	-0.166667	0.028571	0.555556	0	-0.017857	-0.159091	0.059459	-0.045918	-0.090909	-0.164706	0.176056	-0.095808
34 GLODINA	23.59952	-0.114286	0.209677	0.466667	-0.159091	-0.166667	-0.093333	-0.191176	-0.436364	0.258065	0.025641	-0.05	-0.210526
35 GUBINGS	24.25014	0.037559	0.067873	-0.152542	-0.05	0	-0.073684	0	-0.005682	-0.028571	-0.235294	-0.230769	0
36 WBHOLD	24.44	-0.140741	0.034483	0.083333	0.057692	-0.090909	-0.08	0.065217	-0.163265	0.317073	-0.259259	-0.15	-0.205882
37 S&JLAND	24.985	0.058824	-0.027778	0.142857	-0.0375	0.012987	-0.076923	0.027778	-0.243243	-0.125	-0.061224	-0.130435	0.5
38 KAIROS	25.53824	-0.15	-0.235294	0.076923	0.428571	0.25	0.2	0.833333	-0.363636	-0.228571	-0.185185	0.409091	-0.290323
39 ARIES	26.29	0	0	0	0	0.068182	0	0	0	0	0	0	0
40 BRANDCO	27.489	-0.066667	0.107143	0.109677	0.627907	-0.182143	0.004367	-0.130435	-0.55	-0.277778	0.492308	0.072165	-0.067308
41 MDMGROW	27.931	-0.090909	-0.11	0	0.123596	0.02	-0.02451	-0.020101	-0.282051	-0.5	0.657143	-0.137931	0
42 SERVST	30.71509	-0.333333	1.2	0.969697	0.615385	-0.047619	0.2	0.25	-0.066667	-0.535714	0.076923	0.214286	0.029412
43 GLOPVT	30.989	0.045455	-0.021739	0	0.377778	-0.032258	-0.133333	-0.038462	0	-0.28	0.222222	-0.045455	-0.047619
44 NINIAN	31.875	0	0.141304	-0.050476	0.043478	0	-0.010417	-0.210526	-0.066667	-0.064286	-0.292308	-0.076087	0
45 RARECO	34.89706	-0.157303	-0.066667	0.285714	-0.111111	0.5	0	0	-0.083333	-0.018182	-0.074074	-0.01	0.010101
46 AF-&OVER	35.02431	0	0	0.037549	0.142857	-0.166667	0.05	0.049524	-0.238095	-0.025	0	0.066667	0
47 CARGO	35.2	0	-0.066667	-0.142857	0.25	0.5	-0.124444	-0.052632	-0.277778	0.076923	-0.021429	0.014599	0
48 CEMENCO	35.808	-0.007407	-0.253731	-0.05	-0.052632	-0.277778	0	0	0.076923	-0.071429	-0.230769	0.05	0
49 KGMEDIA	36.61205	0.02439	-0.02381	0.060976	0.448276	0.111111	-0.242857	-0.150943	-0.111111	-0.075	-0.189189	0	0
50 STANTRN	36.91285	-0.019417	0.168317	0.347458	0.132075	-0.133333	-0.054487	-0.041096	-0.257143	-0.326923	0.171429	0.02439	-0.011905
51 SONDOR	38.16	0.037736	-0.090909	0.4	0.035714	-0.062069	-0.125	-0.173913	-0.031579	-0.184783	-0.053333	0.15493	-0.25
52 ARCAV	38.512	-0.034826	-0.228804	0.3	-0.102564	0.142857	0	0.0901	0	0	-0.01495	0	-0.027027
53 INMINS	38.9658	-0.111111	-0.1875	0.384615	-0.155556	-0.078947	-0.214286	-0.181818	-0.177778	-0.189189	0.5	0.066667	0
54 GEN-OPTIC	39.61218	-0.05	-0.078947	0.057143	-0.054054	0.071429	-0.066667	-0.1	0	0.126984	0.176471	-0.05	0.052632
55 RLSPPROPS	41.99508	-0.152778	-0.098361	0.418182	-0.25841	-0.103448	0.115385	-0.155172	-0.22449	0.184211	0.104889	0.232558	-0.056804
56 SOFTLINE	42.64464	-0.063415	0.692708	0.2	0.166667	0.197802	0.045872	0.578947	-0.461111	0.113402	0.018519	0.094545	0.054817
57 DAWEOW	43.344	-0.317647	-0.103448	-0.038462	0.44	-0.277778	0.038462	-0.240741	-0.121951	0.111111	-0.3	-0.214286	-0.090909
58 HICORL	43.4588	-0.193548	0.8	0	0.155556	0.980769	0.116505	0.086957	-0.44	-0.3	0.367347	-0.074627	-0.096774
59 WINBEL	43.77324	-0.090909	-0.25	0.555556	-0.142857	-0.166667	-0.28	-0.111111	-0.21875	-0.2	0.35	0.037037	-0.464286
60 DON	45.85521	-0.068966	0.481481	-0.2	0.40625	-0.133333	-0.230769	-0.133333	-0.346154	-0.411765	0.5	-0.066667	-0.071429
61 MARSHALLS	52.116	0	0.029167	0	0	-0.25	-0.111111	0.045	-0.05	0	-0.210526	-0.166667	1
62 OAKFLDS	54	0.092593	-0.152542	-0.1	-0.111111	0.125	-0.222222	0.257143	0.022727	-0.111111	-0.15	0.470588	0
63 PUTPROP	54.13084	0.02439	0.047619	0.095455	-0.045643	0	-0.045455	0	-0.142857	0	0.022222	-0.052941	0.024845
64 MASONITE	54.40764	0	-0.030588	0.010922	-0.08125	-0.183673	-0.041667	0.078261	0.048387	-0.076923	-0.333333	0.0775	0
65 EUREKA	61.2	0	0.282051	-0.016	-0.02439	0.25	-0.125	0.030476	-0.332717	0.052632	-0.052632	0	-0.277778
66 FRANSANF	62.20074	-0.053254	0.21875	0.025641	0.025	0	0	-0.075	0	-0.054054	0	-0.028571	0
67 PUTCO	63.68425	-0.030303	-0.125	0.642857	-0.065217	-0.125	0.028571	-0.122222	-0.050633	0.466667	-0.031818	-0.029412	0.090909
68 PTH	64.42293	-0.03125	-0.096774	2.142857	0.022727	-0.244444	0.352941	0.684783	-0.477419	-0.234568	-0.145161	0.037736	0.163636
69 MILPROP	65.58383	0.050725	0.103448	0.13125	-0.13232	-0.006897	0.006944	-0.048276	-0.275362	0	0.05	-0.01143	-0.294737
70 CULTST	66.0535	-0.051282	0.297297	0.125	0.407407	-0.189189	0.033333	0.064516	-0.318182	-0.111111	0.1	-0.045455	-0.047619
71 GOLDSTEIN	66.7666	-0.117647	-0.277778	0.104615	0	0	-0.285714	-0.04	-0.333333	0.30625	0.128205	-0.1	-0.116162
72 CONFED	67.76	0	0	0	0.02025	0	0	0	0	0	0.005375	0	0
73 WESCAP	68.33136	-0.25	0.333333	-0.25	0.027778	-0.108108	-0.151515	0	-0.328571	0.06383	0.27	-0.208333	-0.031579
74 NATCHIX	69.9686	0.0625	-0.058824	-0.24375	0.239669	-0.1	0	0.222222	-0.151515	-0.135714	-0.132231	-0.047619	0.54
75 TEREKXO	70.0568	0	0.5	-0.333333	0.05	0.990476	-0.318182	0.052632	-0.25	-0.422222	-0.153846	0	0.127273
76 ROMATEX	70.2	-0.016	-0.085366	0.155556	0	0.019231	0.132075	-0.2	0.083333	0	0.326923	-0.101449	-0.067742
77 FORTUNE	71.1962	-0.071429	-0.046154	0.048387	-0.021538	-0.126984	-0.090909	0.12	-0.285714	0.125	0.008889	0	-0.066667

93 BOWCALF	94.2172	-0.033333	0.206897	0.321429	-0.043514	0.142857	-0.15	0.147059	-0.170513	-0.1875	-0.153846	-0.045455	-0.190476
94 ROADCOR	94.3825	0.285714	-0.027778	0.085714	0.578947	0.333333	0.025	0.280488	-0.171429	-0.425287	0.1	0.109091	-0.04918
95 FORIM	95.5	-0.125	0.095238	0.034783	-0.092437	0.296296	-0.228571	0.028571	-0.212963	0.223529	-0.076923	-0.25	0.041667
96 HARWILL	97.223	0.2375	0.131313	-0.017857	0.022727	0.017778	-0.017467	-0.022222	0.022727	0.017778	0	-0.039301	0
97 STEERS	99.66348	-0.026667	0.027397	-0.053333	0.126761	0.2125	-0.315789	-0.038462	-0.24	0.084211	0.281553	-0.234375	-0.030612
98 CMH	100.98918	0.022727	-0.088889	0.170732	0.03125	0.052525	-0.090909	-0.088889	-0.146341	0.071429	0.066667	0.141875	-0.111111
99 GUNDEL	101.74181	0.069444	-0.220779	0.066667	-0.0625	-0.216667	-0.021277	-0.130435	-0.2	0.03125	-0.218182	-0.302326	-0.222222
100 ALACRITY	105.3151	-0.017094	-0.008696	0.145614	-0.055118	-0.183333	-0.071429	-0.054945	-0.453488	0.06383	0	-0.1	-0.066667
101 NEIHOLO	107.90648	-0.396552	-0.071429	0	-0.046154	0.290323	-0.125	0.014286	-0.183099	-0.037931	-0.283154	-0.06	-0.202128
102 NEI-AFR	108.61944	-0.26	0.013514	-0.046667	-0.020979	0.171429	-0.02439	-0.09375	-0.310345	-0.1	-0.133333	0.012821	0.037975
103 OMEGA	108.9165	-0.122807	0.2	0	-0.341667	-0.417722	-0.517391	-0.171171	-0.445652	0.19608	0.153846	-0.333333	-0.05
104 BATEPRO	109.32726	-0.051282	-0.081081	-0.036176	0.203125	-0.168831	-0.125	0.017857	-0.192982	0.043478	0.0625	-0.042553	-0.106667
105 PREMIUM	109.5875	0.075949	0.058824	-0.033333	-0.045977	0.050602	-0.1875	-0.076923	-0.2	0.0625	0.147059	-0.038462	-0.1
106 SAVVEST	110.5096	0.270833	0.065574	0.169231	0.328947	0	-0.02	-0.061224	-0.347826	-0.233333	0.047826	-0.045643	0.130435
107 COATES	111.5328	-0.2	0.339286	-0.293333	-0.022642	0.2	-0.116667	-0.037736	-0.058824	0.010417	0.041667	0.086957	0
108 TOCO	112.23366	-0.555556	0.0625	0.811765	-0.353896	-0.095477	-0.25	0.296296	-0.222857	0.029412	-0.321429	-0.315789	-0.384615
109 KAROS	114.9876	0.136364	-0.24	-0.073684	0.443182	-0.244094	0.145833	-0.145455	-0.255319	-0.071429	0.076923	-0.285714	-0.3
110 MIDAS	118.31204	-0.066667	0.03	0.021127	-0.006897	0.016667	-0.013889	0	-0.014085	0	-0.285714	0.1	-0.08
111 ABACUS	122.434	-0.090909	0.1	0.393939	0.152174	0.132075	-0.05	0.189474	-0.380531	-0.571429	0.666667	-0.233333	-0.086957
112 SOVFOOD	122.73687	0.083333	0.046154	-0.058824	0.6875	-0.32381	-0.014085	0.228571	-0.162791	-0.166667	0.033333	-0.258065	0
113 GROWPNT	126.09312	0.111111	0.06	0.226415	-0.176923	0.020561	-0.068627	-0.210526	-0.226667	0	-0.051724	0.184727	0.086207
114 SAMRAND	126.163	0.25	1.72	0.058824	-0.027778	-0.071429	-0.2	0	-0.153846	0.022727	0.111111	-0.02	-0.228571
115 SPURHLD	134.36698	-0.076923	0.066667	-0.0625	-0.016667	0.016949	-0.090833	0.009615	-0.238095	-0.0125	0.139241	-0.086667	-0.051282
116 BATECOR	134.80796	-0.106061	0.016949	-0.166667	-0.1	0.111111	0.1	-0.163636	-0.391304	0.142857	-0.21875	-0.12	0.090909
117 KOLOSUS	138.6	-0.391892	1.222222	-0.2	-0.0875	-0.178082	-0.133333	-0.096154	-0.319149	0	-0.0625	-0.3	0.333333
118 GROPPROP	144.8	0.087097	0.083086	-0.041096	-0.009171	-0.09375	-0.034483	-0.089286	0.019608	0	-0.050385	0	0.318182
119 MARTPROP	147	0	0.111111	0	-0.07	0.028571	0	-0.305556	-0.152	0.084906	0.130435	0	0.038462
120 ATLAS	147.91252	0.111111	-0.04	-0.020833	0.010638	-0.052632	0.012444	-0.061176	0.0401	-0.156627	0.114286	0.025641	0.2206
121 RMSPROP	148.65004	0.10119	-0.108108	0.030303	0.173529	-0.087143	-0.026946	-0.092308	-0.237288	0.2	0.074074	-0.05621	0.038961
122 CONTROL	148.98738	-0.422222	0.211538	1.031746	0.0625	-0.029412	0.121212	0.040541	-0.376623	0.041667	-0.3	-0.142857	0.333333
123 S&SHOLD	149.055	0.025	-0.167683	-0.037879	-0.188976	0.135922	-0.145299	0.09	-0.541284	0	0.1	0.054545	-0.017241
124 CHESTER	149.66666	-0.022222	0.477273	-0.115385	0.043478	-0.083333	-0.045455	-0.047619	-0.4	0.166667	-0.285714	0	0
125 HEAVEN	152.2425	0.039326	0.130811	-0.092233	0.037433	-0.111111	-0.15625	-0.007407	-0.283582	-0.291667	0.117647	-0.013158	-0.213333
126 ALIANCE	152.46	-0.087719	0.25	0.076923	0.085714	0.197368	0.032967	0.07027	-0.141414	-0.235294	-0.192308	0.047619	0.363636
127 AMAPROP	158.56032	0.070111	-0.034483	-0.071429	-0.115385	-0.26087	0.188235	-0.257426	0.206667	0.049724	-0.157895	-0.1875	-0.076923
128 G5HOLD	159.67552	-0.103376	-0.235294	0.043077	0.151515	-0.236842	-0.017241	-0.157895	-0.229167	-0.005405	0.423529	-0.028926	-0.276596
129 SASFIN	164.76592	0.0625	0.088235	0.3	0.060291	0.107843	-0.065487	-0.128788	-0.304348	-0.101875	-0.071857	-0.090909	0.08
130 LITECH	165.9581	-0.02439	-0.0625	0.2	0.111111	0.014	-0.02	-0.183673	-0.3	-0.25	0.02381	0.093023	-0.07234
131 CROOKES	168	-0.090909	-0.05	-0.021053	0	0.021505	-0.065789	0.035294	-0.215909	-0.217391	-0.046296	0.106796	0.047368
132 KH-PROPS	169.76175	0.045652	0.006237	0.06405	-0.060194	0.094525	-0.040404	-0.073684	-0.056818	-0.096386	0.042667	0.113171	-0.0125
133 FURNCAP	170.14356	0.244444	-0.089286	-0.105882	0.19469	0.051852	-0.045775	-0.00369	-0.192593	-0.063303	-0.175	0.031515	-0.018801
134 GRINDROD	175.63942	-0.046512	-0.04878	-0.027778	0.211429	0.056604	-0.107143	0	-0.225	0.322581	-0.217712	-0.129032	0.148148
135 METAIR	176.22462	-0.032258	-0.038333	0.039861	-0.058333	0.132743	0.009375	0	-0.131667	0.120921	-0.315068	0.05	-0.119048
136 ETINGTN	178.11644	0.0172	-0.03	0.053608	0.154599	-0.091525	-0.080224	0.007911	-0.144603	-0.038095	0.041481	-0.134146	0.028169
137 OXBRIDGE	178.84785	-0.020619	0.052632	0.055	0.054976	0.004545	-0.00905	-0.680365	-0.602857	-0.395683	-0.059524	-0.177215	0.138462
138 TELTRON	182.83048	0.131579	-0.069767	0	0.0125	0.111111	0.16	-0.009901	-0.14	-0.3	0.395349	0	0
139 GOLDREEF	184.55976	0.090909	0.222222	0.068182	0.319149	-0.267742	0.277533	-0.068966	-0.262963	-0.296482	0.357143	0.684211	-0.140625
140 RETCORP	188.7	-0.010811	0.120219	0.280488	0.238095	-0.153846	-0.290909	-0.179487	-0.265625	-0.191489	0.184211	-0.244444	-0.235294
141 OCTODEC	190.01337	0.038462	0.12963	0	-0.213115	0.032292	-0.111111	-0.01	-0.292929	0.085714	0.218092	-0.15625	0.111111
142 ELBGROUP	190.97905	-0.216867	-0.030769	-0.084127	0.056338	0	-0.216667	0.06383	0	0.01	-0.026733	0.066667	-0.0625
143 BELL	195.43632	-0.183333	-0.228571	-0.365079	0.825	-0.424658	-0.365079	0.1875	-0.052632	0.1	0.010101	0.25	1.12
144 NRB	195.97916	0.1	-0.090909	0.276	0.410658	0.188889	-0.01105	-0.050279	-0.117647	-0.214667	-0.159593	0.212121	-0.285714
145 BOUMAT	201.92364	-0.095238	-0.052632	-0.111111	-0.0625	0.888889	-0.141176	-0.041096	-0.2	-0.525	-0.022556	0.538462	-0.21
146 SEARDEL	203.5546	0.005882	-0.111111	0.080592	0.09375	-0.011429	-0.075145	0	-0.0625	-0.066667	-0.014286	-0.081522	-0.083333
147 BASREAD	209.38	0.125	0.074074	-0.08046	0.1	-0.079545	-0.135802	-0.214286	-0.021812	-0.02963	0.145038	0.05	-0.126984
148 DUNLOP	212.73186	0.1	0.321212	0.147431	-0.078947	-0.114286	-0.145611	-0.207547	-0.404762	0.38	-0.030769	0.150794	0.241379
149 WACO	213.11712	0.16129	0.155556	-0.110577	0.261261	-0.035714	-0.125926	-0.033898	-0.166667	-0.063158	-0.011905	-0.072289	0.064935
150 THEBEFIN	215.19597	0.042424	0.447674	-0.084337	0.425439	0.064615	-0.156532	-0.103448	-0.326923	-0.171429	0.068966	0.177419	-0.305556
151 SPUR	215.4759	-0.047619	0.05	-0.052381	-0.095477	0.111111	-0.063	0.111111	-0.38	-0.096774	0.339286	-0.113333	-0.079365
152 WBHO	217.52472	-0.075786	0.05	0.001905	0.057692	0.090909	-0.191667	-0.360825	-0.032258	-0.25	0.302326	-0.303571	-0.076923
153 DNA SUP	219.70875	0	-0.010381	-0.230769	0.272727	-0.053571	-0.245283	-0.2	-0.84375	-0.44	-0.285714	-0.2	-0.375
154 CBD-FUND	219.8484	0	-0.028571	0.176471	0	-0.0008	-0.166667	-0.033333	-0.103448	0.076923	-0.071429	0.131769	0.230769
155 AMAPS	220.4	0.125	0.296296	0.214286	0.229412	-0.043062	-0.3125	-0.181818	-0.444444	-0.24	0.231579	-0.264957	0.190476
156 IPROP	227.4056	0.025735	0.075269	-0.046667	-0.125874	-0.156	-0.641706	0.022663	0.168975	0.09	0.17737	-0.153247	-0.003671
157 NEWPORT	232.65813	-0.011494	0	0.023256	0	0.071227	-0.115909	-0.125964	-0.044118	-0.076923	-0.166667	0.185966	0.073069
158 STOCHOT	238	0.473684	-0.142857	0	-0.166667	-0.11	0.11236	0.363636	-0.444444	-0.014085	-0.028571	-0.073529	-0.015873
159 SMGHOLD	238.69632	-0.1	0.75	-0.047619	0.333333	0.14375	-0.114754	0.05625	-0.289941	-0.108333	-0.158879	-0.177778	-0.189189
160 HYPROP	244.54476	0.001754	0.068301	0.129508	0.007765	-0.076923	-0.033333	-0.103448	-0.086538	0.072042	0.075269	0.01	0.039604
161 PANPROP	244.86528	0.089109	0.045455	0.006522	0.035294	-0.045455	-0.107143	-0.04	-0.138889	0.183871	0.076923	-0.014286	0.101449
162 CENPROP	245.2365	-0.013333	0.243986	0.117647	-0.147368	0.018519	-0.151515	-0.05	-0.071128	0.055046	-0.026087	0.25	0.057143
163 PSG	248.771	0.086538	0.353982	0.111111	-0.082353	0.128205	-0.139205	0.155116	-				

186 PIONEER	319.44993	0.155	-0.004329	0.147826	-0.034091	0.008392	-0.166667	-0.175	-0.133333	0.083916	0.064516	0.077576	0.1875
187 SYCOM	324.91854	-0.018519	0.037736	0	0.009091	0.04627	-0.092593	-0.132653	-0.247059	0.08125	0.028902	0.217725	0.147959
188 BEARMAN	327.96504	-0.072727	-0.051471	0.026316	-0.205128	-0.032258	-0.193333	0.404959	-0.411765	0.368421	-0.269231	0.105263	-0.190476
189 MORIBO	334.09024	0.071429	0.04	-0.358974	0	-0.04	-0.0625	-0.033333	-0.208897	-0.362319	0.772727	-0.153846	-0.242424
190 GLOHOLD	337.5295	-0.25	0.185185	0.59375	-0.196078	0.195122	-0.142857	-0.095238	-0.315789	-0.230769	0	-0.1	0.222222
191 CULLINAN	353.69982	0.034483	0	0.266667	0.026316	0.487179	-0.172414	-0.020833	-0.361702	-0.166667	0.16	-0.275862	0.047619
192 TELJOY	371.52	0.086614	0.463768	0.009901	0.127451	0.013043	-0.18927	0.010638	-0.494737	-0.114583	0.512941	-0.269051	-0.085106
193 RAINBOW	391.99149	-0.142857	-0.055556	0.235294	0.952381	-0.317073	0.428571	-0.2	-0.15625	-0.074074	0.2	-0.1	-0.037037
194 ADVANCED	392.67807	0.023333	0.514658	0.236559	0.043478	0.108333	-0.304511	0.091892	-0.358436	-0.038462	0.52	-0.263158	-0.014286
195 OMNIA	396.56595	0.090909	0.125	0.185185	-0.051875	-0.057627	-0.226619	-0.023256	-0.285714	0.066667	0.0325	-0.104116	0.072973
196 SEAHARV	404.76776	-0.090909	0.04	0.169872	0.232877	0	-0.087778	0.0875	-0.034483	-0.047619	0	-0.025	0.05641
197 TMX	413.32695	-0.1	-0.108333	0.323988	-0.121035	0.416667	0.098039	-0.116071	-0.222222	-0.142857	-0.121212	0.724138	0.01
198 OUTSORS	414.81216	0.588235	0.561481	0.438095	0.307947	-0.170886	0.442748	0.333333	-0.670635	0.325301	-0.018182	0.148148	0.120968
199 UNISERV	425.72566	-0.004082	0.118852	0.106227	0.10596	0.128743	-0.12	-0.030303	-0.15625	-0.111111	0.333333	-0.140625	-0.069091
200 VENTRON	428.91784	-0.086667	0.00365	0.027273	0.150442	0.045385	0.060606	-0.2	-0.107143	-0.2	0.05	-0.142857	-0.125
201 LENCO	433.45704	-0.025	0.102564	-0.093023	0.128205	-0.068182	-0.268293	-0.233333	-0.326087	0.116129	0.156069	0.05	0.02381
202 RENTSUR	448.8	0.136364	0.32	0.136364	0.078933	0.237624	-0.08	0.208696	-0.460432	-0.183333	0.147755	-0.035714	-0.037037
203 FELTEX	450.087	-0.152381	0.235955	-0.277273	0.132075	-0.111111	-0.13375	0.022059	-0.280576	0.01	-0.887129	0.171429	0.170732
204 CORNICK	450.99901	-0.046358	0.5625	-0.044444	-0.046512	0.256098	-0.201942	-0.175182	0	0	-0.823009	-0.408333	0.126761
205 WESCO	452.61574	0	-0.001923	-0.229287	0.27	0	-0.040816	-0.085106	-0.377907	-0.216822	-0.069212	0	-0.025641
206 ADCORP	464.55584	0.092105	0.192771	0.095354	0.122222	-0.042904	-0.172414	0.104167	-0.188679	-0.255814	0.2	0.020833	-0.081633
207 GRINAKE	465.36	-0.04	0	-0.109167	0.075472	-0.210526	-0.083333	-0.236364	-0.063492	0.086441	0.048387	-0.076923	-0.041667
208 HOMECHOIC	469.8973	0.134831	0.306931	0.066667	0.1	0.064935	-0.04878	-0.057692	-0.193197	-0.355932	0.223684	-0.053763	-0.022727
209 NUWORLD	475.86718	0.003571	0.13879	0.09375	0.214286	0.057647	-0.065628	-0.314286	-0.166667	-0.170833	0.143216	-0.07011	-0.309524
210 DELCORP	479.91784	0.145161	-0.15493	0.1	0.136364	-0.066667	-0.242857	0.022642	-0.446494	0.266667	-0.184211	-0.058065	0.027397
211 FASHAF	480.025	0.026455	0.43299	0.007194	0.192857	-0.035928	-0.240969	0.015625	-0.384615	-0.175	-0.974242	0.647059	-0.071429
212 AHEALTH	485.30108	-0.25	0.044444	0.06383	0.2	0.088833	-0.069841	-0.215017	-0.173913	0.052632	0.175	0.217021	-0.071429
213 TOURVST	487.35805	0.042857	-0.109589	0.284615	0.347305	-0.088889	-0.073171	0.105263	-0.378119	-0.221374	0.22549	0.184	-0.054054
214 MGX	514.06264	0.141809	0.134904	0.245283	0.090909	0.083333	0.051282	0.04878	-0.383721	0.075472	0.017544	-0.103448	-0.048077
215 GRAYPROP	514.1664	0.055556	0.040053	0.021622	-0.100529	-0.041176	-0.153374	0.023261	-0.162963	0.150442	0.139	-0.037037	0.153846
216 LANGEBOG	520	0.185185	-0.125	0	-0.125	-0.020408	-0.125	-0.047619	0	0.075	0.074419	0.125541	0.017308
217 GROUP-5	520.89684	-0.01	-0.282828	-0.04507	0.212121	-0.05	-0.236842	-0.141379	-0.196787	-0.025	0.388889	-0.24	-0.026316
218 ALTECH	522.49318	-0.001563	-0.037559	0.065041	0.343511	-0.048295	-0.177914	0.19403	-0.190625	-0.189189	0.380952	-0.086207	-0.113208
219 HUDACO	524.91888	-0.006667	0.148658	-0.142424	-0.010601	-0.089286	-0.239216	-0.250515	-0.285714	-0.06	0.117021	0.049524	-0.067151
220 ALTRON	547.73901	-0.131579	0.090909	0.211111	0.110092	0.080579	-0.140625	-0.217273	-0.210221	-0.25	0.137255	-0.051724	-0.009091
221 CITYLDG	550.8316	-0.071942	-0.174806	0.205742	0.111111	0	-0.178571	-0.086957	-0.300476	-0.392857	0.670588	0.007042	-0.055944
222 OCEANA	550.90336	0	0.114754	0.014706	0.130435	0.051282	-0.051098	-0.209091	-0.129721	-0.132075	0.130435	0.105769	-0.092174
223 OZZ	588.4325	-0.211765	-0.029851	0	0.042308	0.01845	-0.130435	0.01125	-0.173913	-0.057895	-0.050279	0.052941	-0.065363
224 METKOR	601.21516	-0.272727	0.1875	-0.122807	0.36	0.117647	-0.357632	-0.268085	-0.127907	-0.066667	0.071429	0.2	0.077778
225 SASANI	610.1964	-0.058909	0.62	-0.185185	0.060606	0.1	-0.038961	-0.108108	-0.484848	-0.264706	0.52	-0.394737	-0.086957
226 MR PRICE	632.7504	0.257143	0.045455	0.217391	-0.089286	-0.009804	-0.058812	-0.117021	-0.325301	0.035714	0.106897	0.152648	-0.290541
227 GRINTEK	713.46768	0.023529	0.931034	0.054762	0.142857	-0.505	0.212121	0	-0.466667	0.589063	-0.12	0.136364	0.02
228 CFC	724.16	-0.068493	0.135294	-0.041451	0.005676	-0.148649	-0.033333	-0.064039	-0.298246	-0.125	0.006	-0.2	0.071429
229 INTRUST	725.97483	-0.022989	0.129412	0.119792	0.003172	-0.013953	-0.056604	-0.04	-0.671875	-0.095238	0.298246	0.054054	-0.102564
230 LESRNET	749.2244	-0.01087	0.285714	0.147009	-0.023845	0.221374	-0.275	-0.086207	-0.339623	-0.285714	0.396	-0.140401	0.116667
231 FINTECH	754.929	-0.031891	0.011765	0.046512	0.255556	-0.042478	-0.150943	-0.115556	-0.346734	-0.019231	0.009804	0.029126	-0.075472
232 GENBEL	837.52	0.034398	0.239905	0.030651	0.118959	-0.003322	-0.05	0.042105	-0.401724	0.037464	0.086111	0.023018	-0.025
233 DELTA	848.71264	-0.018568	0.151351	0.141925	0.270833	-0.021311	-0.281407	0.118881	-0.282708	0.061765	0.385042	-0.1	-0.111111
234 RAI	851.34048	0.271186	0.113333	0.107784	0.191892	0.353741	-0.259631	0.153846	-0.392157	0.154839	0.03352	-0.027027	-0.016667
235 DATEC	862.12698	0.166667	0.25291	0.271959	0.32866	0.12	-0.017857	0.121818	-0.400324	-0.189189	0.41756	-0.261176	0.210191
236 TIWHEEL	874.4036	0.02439	0.209524	0.141732	0.017241	0.152542	0.029412	0.072857	-0.254328	-0.142857	0.229167	0.025424	-0.057851
237 CHEMSERVE	917.172	0.019608	0.192308	0.172387	0	-0.072222	-0.191617	-0.285185	-0.367254	0.166667	0.078571	0.07947	-0.018405
238 KVV-BEL	918.54	-0.073846	0.096346	-0.036364	0.019231	-0.150943	-0.256259	0.06	-0.165094	-0.19096	0.061538	-0.108696	0.219512
239 VOLTEX	931.2345	0	0	-0.04	0.083333	0.011673	-0.153846	-0.022727	-0.44186	0.333333	0.25	0.04	-0.038462
240 SAMBOU	948.258	0.068182	0.217021	0.055944	0.18543	-0.111732	-0.20283	0.166667	-0.387755	-0.294444	0.401575	0.061236	-0.042553
241 POWTECH	961.02524	-0.0125	0.012658	-0.025	0.153846	0.191111	-0.228571	-0.296296	-0.192892	-0.23913	-0.014286	-0.101449	0.16129
242 DALYS	984.6706	0.099957	-0.019829	0.030614	0.077525	-0.017805	-0.06092	-0.173723	-0.208716	0	0.166377	0.027919	-0.046914
243 I-&J	985.84805	0	-0.208333	-0.052632	0.055556	-0.121053	0.047904	0.171429	0.073171	-0.181818	0.10119	0	0.081081
244 HLH	990.2208	0.075269	0.3	0.130769	0.080272	-0.06801	-0.121622	-0.115385	-0.347826	0.08	0.049383	-0.058824	0
245 UNITRAN	1046.17432	-0.122257	0.142857	0.140625	0.185596	-0.11215	-0.118421	0.008955	-0.023669	-0.175152	0.25	-0.151515	-0.178571
246 TOYOTA	1058.99472	0.009091	-0.047059	-0.023457	0	-0.13913	0.085859	-0.24186	0.01227	-0.000606	-0.083077	-0.067114	-0.028777
247 SILTEK	1077.94531	-0.083333	0.647059	0	0	-0.170103	0.167702	0.329787	-0.344	-0.160976	0.067164	-0.090909	0.044615
248 DELFOOD	1084.74547	0.090625	-0.140401	0.033333	0.225806	-0.118421	-0.19403	0	-0.407407	0.25	-0.225	-0.064516	0.075862
249 ABIL	1124.8892	0.638158	0.220884	-0.003289	0.531353	0.088362	-0.011881	0.132265	-0.492035	0.205575	0.271676	-0.190909	0.123596
250 PIKWIK	1189.094	0.100649	0.106195	0.04	0.076923	-0.099229	-0.2	-0.080882	-0.08	-0.217391	0.611111	-0.128414	-0.1
251 GARDIAN	1288.023	0	0.038462	0.045926	0.011561	0.035714	-0.075862	0.08209	-0.155862	-0.195833	-0.108808	0.116279	0.354167
252 HIVELO	1318.4421	-0.018692	0.333333	-0.125	0.344538	-0.115625	-0.222615	0.340909	-0.111864	0.128906	0.124567	-0.015385	-0.071875
253 REBSERV	1332.15	0.018931	0.584699	0.192414	0.15942	0.15	0.065217	0.102041	-0.481481	0.213571	0.065089	-0.094444	-0.018405
254 TEMPORA	1333.6062	0.112427	-0.049296	0.046296	0.238938	-0.157143	-0.118644	-0.100538	-0.391304	0.25	0.142857	0	-0.075
255 MOBILE	1433.71949	0.033333	0.064516	0.043455	-0.005848	0.105882	-0.1						

279 ENERGY	2317.3678	-0.256311	-0.151436	0.113846	0.353591	-0.202041	0.01023	-0.126582	-0.188406	-0.235714	-0.11215	0.052632	-0.1
280 PICKNAP	2413.23	0.078984	0.056209	0.113861	0.066667	-0.153646	-0.09434	-0.138889	-0.193548	-0.24	0.802632	-0.072117	-0.095238
281 ABI	2413.837	0.286765	-0.037714	0.140143	-0.0625	0.261333	-0.080357	0.019417	-0.319048	-0.083916	0.244275	-0.093497	0.034014
282 ILLOVO	2454.7113	0.004843	0.024096	-0.058824	0.0625	-0.023529	-0.090361	-0.121622	-0.307692	0.088889	-0.020408	0.208333	0.12069
283 SAGEGRP	2535.10236	0.011364	0.2	0.123596	-0.033333	-0.060345	-0.082569	-0.032	0.429787	0.044776	0.25	-0.085714	0.03125
284 AECI	2599.35	-0.013158	0.1	0.177273	0.329787	0.132	-0.159011	0.071429	-0.223529	-0.477273	-0.019324	-0.093596	-0.184783
285 SA-DRUG	2662.28	-0.155556	-0.078947	0.119048	0.191489	-0.024643	0.022222	0.181159	-0.279141	0.085106	0.009804	0.108738	0.046429
286 M-CELL	2682.72951	0.111111	0.128571	0.181013	0.123656	-0.019139	-0.034146	0.161616	-0.513043	0.116071	0.328	-0.124096	0.066025
287 SANTAM	2760.0276	-0.027778	0.128571	0.088608	-0.046512	-0.085366	-0.1216	-0.176923	-0.386916	0.140244	0.042781	-0.010256	-0.033679
288 REUNERT	2799.104	0.050633	-0.048193	0.240506	0.147959	-0.117333	-0.316327	0.044776	-0.357143	0.133333	0.203922	0.190554	0.162791
289 BOECORP	2835.40656	0.1	0.079545	0.031579	-0.061224	-0.127391	-0.25	0.016667	-0.368852	-0.012987	0	-0.078947	-0.034857
290 KERSAF	2880.4266	-0.148148	-0.282609	0.191212	-0.082667	0.02907	0.014124	0.189415	0.007026	0.060233	-0.00463	0.167442	0.075897
291 ELLERINE	2893.89405	0.149682	0.203601	0.104718	0.09375	-0.152952	-0.265306	-0.174383	-0.506542	-0.007576	0.167939	-0.093464	-0.059259
292 JDGROUP	2997.07	0.159664	0.369565	0.002328	0.095745	-0.124272	-0.115299	-0.0401	-0.516971	0.473514	-0.037037	-0.076923	0.083333
293 TRENCOR	3025.95222	0	0.0775	-0.007425	-0.002353	-0.080189	0	0.035897	-0.306931	-0.065	-0.078431	-0.085106	0
294 CADSWEP	3163.3927	0.153846	-0.061538	0.051913	0.010526	0.041667	-0.105	0.005587	-0.222222	-0.108	0.077419	0.054795	0.032468
295 PSL	3328.325	0.2	0.333333	0.2125	-0.061856	0.549451	-0.007092	-0.071429	-0.469231	-0.231884	-0.184906	-0.189815	0.142857
296 METCASH	3429.83628	0.117647	0.115789	-0.103774	0.178947	-0.035714	-0.292407	0.140584	-0.337209	0.031579	0.292517	0	0.036842
297 SHOPRIT	3430.86975	0.113095	0.208556	-0.029646	0.123853	-0.053061	-0.181034	0.036842	-0.238579	-0.043333	0.239437	0.090909	-0.145833
298 CAPTALL	3436.21452	0.184	0.011824	-0.015025	0.288136	0.052632	-0.1775	0.156535	-0.802891	0.18	0.502825	0.030075	0.156934
299 NAIL	3461.40815	0.084906	0.252174	0.131944	-0.153374	0.188406	-0.097561	0.081081	-0.4875	-0.121951	0.361111	-0.040816	-0.053191
300 FOSCHINI	3479.398	0.05	0.174603	0.081081	0	-0.05	-0.342105	-0.2	-0.102778	0.295265	-0.043011	-0.151685	
301 TIB	3554.76	0.043038	-0.107961	0.305556	0.031915	-0.072165	-0.244444	-0.005882	-0.201183	0.385689	-0.039437	-0.002933	-0.058824
302 PPC	3617.658	-0.05	-0.061404	-0.084112	0.244898	0.036066	-0.25712	-0.232609	0.01983	-0.055556	0.264706	-0.004651	-0.08642
303 PRIME	3775.56452	0.144033	0.256709	0.018705	0.228814	0.022989	-0.078652	0.01642	-0.53012	-0.128205	0.235294	-0.242857	-0.106918
304 M&R-HLD	3847.52	-0.089796	0.143498	0.098039	0.13631	-0.053191	-0.314607	0.040984	-0.228346	0.197959	-0.09029	-0.16	-0.261905
305 JOHNCOM	3877.77612	-0.003268	0.065574	0.204615	0.282503	-0.04	0.041667	-0.1154	-0.261364	-0.246154	0.020408	0.18	-0.220339
306 SIB	4001.35763	0.191667	0.055944	-0.619205	0.113043	-0.014063	0.10935	-0.464771	-0.302326	-0.746667	-0.078947	0.2	-0.119048
307 MIH	4038.6776	-0.035714	0.388889	0.146667	0.162791	-0.082	-0.076253	0.037736	-0.186364	-0.497207	0.2	0.152778	-0.164659
308 TEGKOR	4159.96	0.055556	-0.094489	0.364985	-0.021739	-0.111111	-0.15	-0.058824	-0.16875	0.346053	-0.035294	-0.027439	0.003135
309 INHOLD	4173.24048	0.086957	0.2	0.020833	0.004082	-0.019512	-0.034411	0.038961	-0.408333	0.197183	0.170588	0.006533	-0.034205
310 FIT	4287.645	-0.041667	0.130435	0.061346	-0.06055	-0.042969	0.163265	-0.089772	-0.252174	0.006977	-0.046512	0.219512	-0.02
311 POLIFIN	4559.5	-0.085714	0.296875	-0.112048	0.089655	-0.151899	-0.208955	0	-0.113208	0.111111	0.25	-0.152	-0.056604
312 PLATE-GL	4566.72411	-0.065521	-0.063218	-0.030675	0.08481	-0.085881	-0.254902	-0.254386	-0.364706	0	0.296296	-0.057143	0.060606
313 AFROX	4720.14237	-0.064885	-0.020408	0.125	0.081481	-0.143836	-0.18864	-0.13	-0.241379	0.136364	-0.08	-0.023913	0.076923
314 LIVEST	4848.80928	-0.038202	0.121495	0.162083	-0.063636	-0.145631	-0.045455	-0.178571	-0.197101	-0.009386	0.104478	-0.097973	0.026217
315 NASPERS	5005.15648	-0.0125	-0.164557	0.280303	0.149112	0.007209	-0.202454	-0.034615	-0.332443	-0.262	0.162602	-0.020979	0.095238
316 PEPKOR	5193.85176	0.16	0.168966	0.016962	0.002941	-0.164223	-0.229825	0.082005	-0.345263	0.066881	0.519757	-0.16	0.142857
317 A-V-I	5348.19	-0.083333	0.100606	-0.030837	0.477273	-0.153846	-0.409091	-0.092308	-0.067797	-0.009091	0.007767	0.406551	0.020548
318 ADCOCK	5658.2568	-0.101266	0.087324	0.046832	0.237624	-0.104	0.027027	-0.144737	-0.120513	0.049563	0.141667	-0.079805	-0.078591
319 BOE	5709.15072	0.134524	0.112277	0.127358	-0.142259	-0.089268	-0.216129	0.028807	-0.514667	0.178571	0.072261	-0.015217	-0.139073
320 M&F	5716.817	0	-0.01	0.046465	0.067961	-0.090909	-0.2	-0.005	-0.321608	0.06	0.232143	0.043478	-0.263889
321 SAFREN	6242.849	-0.017897	0.133257	0.01005	0.040796	-0.03285	-0.234765	-0.519582	-0.059783	0.156069	0.085	0.141487	0.044118
322 PREM-GRP	6330.636	0.018868	0.085185	-0.874138	0.09589	0	0.8875	-0.15894	-0.173228	0.047619	0.227273	-0.007407	0.029851
323 SAPPI	6363.224	-0.161224	0.068127	0.116173	0.2	-0.054422	-0.19964	0.235955	-0.270909	-0.062344	0.489362	-0.067857	-0.090038
324 EDCON	6385.844	-0.180723	0.161765	0.078481	0.038732	-0.064407	-0.351852	-0.4	-0.285714	-0.18	0.368564	-0.142574	-0.174419
325 BIDVEST	6409.98943	0.08642	0.129545	0.112676	0.036166	-0.092496	-0.129808	0.077348	-0.251282	-0.024247	0.140845	0.069136	-0.013857
326 GENSEC	6688.60552	0.125581	0.291322	0.056	0.113836	0.054422	-0.060645	-0.07967	-0.419403	-0.276316	0.127273	-0.056452	0.05641
327 TONGAAT	6880.34272	-0.016129	-0.147541	-0.067308	0.241237	-0.10299	-0.153704	0.19774	-0.186792	-0.280742	0.058065	0.150915	0.082252
328 METLIFE	7044.9	0.032727	0.25	0.121127	-0.095477	-0.027778	-0.063714	-0.079755	-0.36	-0.189474	0.331169	-0.160976	-0.119767
329 CGS-FOOD	7085.784	0.124857	-0.01875	-0.044586	0.053333	-0.113924	-0.168429	-0.095652	-0.134615	-0.066667	0.285714	0.074074	-0.022586
330 COMPAREX	7230.89346	0.254682	0.194955	0.032581	0.334951	-0.018182	-0.018519	0.237736	-0.321646	0.103169	0.134969	-0.054045	-0.081113
331 FEDSURE	7330.455	0.018364	0.213115	0.137973	0.011976	-0.060355	-0.093199	-0.066667	-0.410491	-0.051282	0.5	-0.228829	0.074766
332 COROHL	7431.368	0.129252	0.114458	0.07027	0.060606	0.032381	-0.151292	0.154348	-0.416196	0.048387	0.461538	-0.105263	-0.067059
333 ISCOR	7909.66	0.229167	-0.067797	-0.169697	0.189781	-0.079755	-0.253333	0.258929	-0.099291	0.11811	0.075758	-0.035211	-0.226277
334 PERSBEL	8829.12204	0.070175	-0.098361	0.290909	0.239437	-0.113636	0.217949	-0.305263	-0.075758	-0.413115	0.061453	0.157895	-0.981818
335 JOHNNIC	8886.84	0.061776	0.054545	0.1	0.147492	-0.178082	-0.153333	0.043307	-0.264151	-0.323333	0.384314	-0.127479	-0.097403
336 FIRSTRAND	9024.56336	0.181818	0.340659	-0.070779	-0.110619	-0.032119	-0.061856	0.07033	-0.404517	-0.091379	0.386148	-0.035813	-0.082857
337 WOOLTRU	9071.256	0.076453	-0.130682	0.113072	0.068249	-0.35	-0.350427	0.013158	-0.194805	-0.009677	0.378151	-0.079268	-0.013245
338 NAMPAK	9160.032	0.164384	0.117647	0	0.147368	-0.174312	-0.214	-0.285714	-0.21	0.012658	0.30625	-0.215311	0.126585
339 DIDATA	9262.53216	0.190476	0.176	0.098639	0.086687	-0.017094	-0.072464	0.157813	-0.352227	-0.004167	0.075314	-0.167315	0.168224
340 RMBH	9532.3053	0.145985	0.566879	-0.258252	-0.093407	-0.063636	-0.15534	0.068966	-0.422939	0.043478	0.327857	-0.081818	-0.059406
341 LIBSIL	9581.925	0.079027	0.183099	0.023333	-0.023529	-0.072289	-0.096104	-0.123563	-0.331148	-0.046078	0.410526	-0.067164	0.1
342 INVSTEC	9779.12509	0.082265	0.207305	0.03843	-0.03937	0.020492	-0.06747	0.082609	-0.398394	0.188251	0.168539	0.013221	-0.043062
343 IMPERIAL	10421.45476	0.00885	0.047368	0.046566	0.112903	-0.07971	-0.086614	-0.077586	-0.342056	0.210227	0.035714	-0.149425	-0.027027
344 TIGBRANDS	10571.904	0.175595	-0.044304	0.011921	0.049738	-0.148379	-0.227379	0.042146	-0.181985	0.022472	0.268132	0.055459	-0.027915
345 REMBR-BEH	11073.6	0.00625	-0.072294	0.204545	0.145283	-0.103789	-0.154412	0.021739	-0.212766	0.271805	0.011111	-0.024176	-0.04955
346 CGSMITH	11307.68	0.145	0.028384	0.023355	0.037344	-0.148	-0.224413	-0.092025	-0.189189	-0.0375	0.190476	0.043636	-0.038328
347 BARWORLD	11369.8												

	98MC	1999JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DES	
1	INDFIN	2	-0.24	-0.263158	0.071429	0	0	0.966667	-0.118644	-0.230769	-0.25	0	0.866667	0.285714
2	TOLARAM	2.6795	0	-0.3	0.190476	1	0.5	-0.333333	-0.06	-0.042553	0	0.866667	1	0.25
3	SERVEST	4.30848	0.028571	0.194444	0.488372	-0.109375	0.021053	0.030928	0	-0.2	-0.104167	0.116279	-0.1875	0.179487
4	PALS	5.9	-0.25	0	0	0.066667	-0.0625	0	-0.166667	0.2	-0.133333	0.884615	0	0.111111
5	PACHOLD	6.438					-0.045455	0	-0.047619	-0.05	0	-0.263158	0	0
6	AMLAC	6.93	-0.586667	0.290323	0	-0.275	-0.137931	1.8	-0.328571	-0.574468	0.5	-0.233333	0	0.304348
7	LABAT	7.40698	0.097826	0.009901	0.215686	0.048387	-0.153846	0.545455	-0.270588	-0.274194	0.055556	-0.210526	-0.253333	-0.089286
8	VALAUTO	7.425	0	0	0	0	0	0	0	0	0	0	0	0
9	CORWIL	7.96675	-0.1	0	0	0	-0.027778	0	0	0	0.028571	0	1.111111	-0.315789
10	ADONIS	8.555	-0.375	-0.266667	0.818182	-0.25	0	0	-0.066667	0.085714	0.184211	-0.222222	-0.257143	0.730769
11	QUICKCO	8.7048	-0.5	0	0	0	0	0	0	0	1	-0.5	0	0
12	PACIFIC	8.91072	-0.583333	-0.56	0	1.818182	0	-0.129032	-0.037037	-0.307692	-0.055556	0	0	0
13	NICTUS	9.0519	0	-0.473684	0.6	-0.0125	-0.088608	-0.097222	-0.538462	0	0	0	0	0
14	ALEXWYT	9.0625	0.976744	-0.152941	0.805556	-0.076923	0.041667	0.04	-0.2	-0.192308	-0.345238	-0.090909	-0.3	-0.142857
15	VENTEL	9.0891	0	-0.157895	0.625	-0.307692	-0.055556	0.235294	-0.095238	-0.052632	0.055556	0	0	-0.105263
16	CEMENCO	9.13104	0	0.047619	0.090909	0.666667	-0.2	-0.0625	0	0	0	-0.266667	0	0.272727
17	GLODINA	9.62612	0.066667	0	0	-0.0625	0.033333	-0.032258	0.066667	0.09375	0	0	0.142857	-0.15
18	CLYDE	9.68	0	0	-0.069767	-0.225	0.612903	0.3	-0.246154	-0.040816	0.06383	-0.1	-0.444444	0.76
19	DAEWOO	10.32	-0.05	-0.052632	0	0	0.055556	-0.105263	0.294118	-0.227273	-0.117647	-0.333333	0	0.2
20	WINBEL	10.4222	0.466667	-0.136364	0.105263	-0.047619	-0.2	-0.1875	0.076923	0.142857	-0.25	-0.083333	-0.090909	-0.2
21	VALCAR	11.55	0	0.125	0	0	0	0	-0.111111	0	0	0	0	0
22	COMPASS	12.232	-0.069231	0.115702	0.223852	0	0.068966	0	0.064516	0.121212	-0.027027	-0.055556	0	0
23	INMINS	12.3456	-0.142857	-0.027778	0.057143	0	0.027027	-0.078947	0.028571	0.166667	-0.047619	-0.025	0.205128	-0.159574
24	INTEGREAR	12.38226	0.28125	0.097561	-0.333333	-0.266667	0.136364	-0.28	0.388889	0.08	0.148148	-0.129032	-0.185185	0.090909
25	JIGSAW	12.4404	-0.020979	0	0.15	0.341615	-0.074074	0.025	0.014634	-0.029268	-0.065327	0.069892	0.055276	0
26	YORKCOR	13.248	0	-0.016667	0.186441	-0.057143	-0.022727	-0.224806	0.5	0	0.1	-0.090909	0	0
27	WBHOLD	15.04	0.037037	0.214286	-0.117647	0.013333	-0.144737	0.038462	-0.185185	0	-0.172727	-0.285714	0.076923	0.5
28	NINIAN	15.9375	0.058824	0.022222	-0.119565	0.052632	0	0	0.075	0.395349	-0.141667	0.4	0.214286	0.058824
29	UNIGRO	16.16979	0.142857	-0.375	-0.36	0.75	-0.107143	-0.2	-0.45	0.909091	0.380952	-0.103448	-0.038462	0
30	REFCORP	17.3662	0.130435	0.384615	-0.444444	0.05	0	-0.52381	0.6	-0.25	-0.416667	0	-0.285714	-0.4
31	ANBEECO	18.42294	-0.2	0.03125	-0.090909	-0.1	-0.037037	0.153846	0.2	0.111111	-0.15	-0.117647	-0.3	0.428571
32	WINHOLD	18.46404	0.136364	-0.2	0.05	0.142857	-0.208333	-0.052632	0	0.111111	-0.05	-0.157895	-0.125	0.285714
33	S&JLAND	18.936	-0.15	0.176471	-0.166667	0	0	-0.2	-0.1	0.055556	0.473684	0.107143	-0.096774	0.035714
34	GUBINGS	19.2945	0	0.002	0	0.097804	0	0.090909	0.166667	0	0.142857	-0.15	0.176471	0.2125
35	RLSPROPS	19.30419	-0.14	0.046512	0	0	-0.022222	-0.090909	0.125	0.111111	0.18	0.069492	0.176471	-0.016667
36	NEIHOLD	19.33084	0	0.533333	-0.023043	0.95122	-0.2475	-0.003322	0	0.166667	-0.114286	0.032258	0.40625	-0.022222
37	ARCAV	19.92	0	0	0	0.155611	0	0	0.275	-0.058824	-0.208333	0	0	0
38	ALUDIE	21.5973	0.271429	-0.101124	-0.0625	-0.133333	-0.061538	0.47541	-0.177778	-0.472973	0.153846	-0.244444	0.294118	-0.431818
39	ADMIRAL	23.06898	0.4	0.632653	0.1	-0.431818	-0.2	-0.25	-0.4	0.055556	-0.526316	0.666667	-0.6	1.666667
40	SPANJAARD	23.313	-0.184211	0.209677	-0.066667	-0.142857	-0.066667	0.025	0	0	-0.035714	-0.037037	-0.038462	-0.02
41	ARIES	25.1658	0	0	0	0.072727	0	0	0	0	0	0	0	0
42	BOLWEAR	25.4	0.428571	-0.1125	0	-0.014085	0	0.057143	0.071429	0.066667	-0.0625	0.026667	0.103896	0.041176
43	PASDEC	28.54164	0.026316	-0.102564	-0.057143	-0.121212	0	-0.034483	-0.285714	0.3	0.346154	0.142857	-0.175	-0.090909
44	GOLDSTEIN	28.88555	0.142857	-0.1	0.05	0.272222	-0.082969	-0.052632	0.338889	-0.024896	-0.021277	0.565217	-0.111111	0
45	GUNDLE	29.12688	0.285714	-0.333333	0.666667	-0.35	-0.138462	0.160714	-0.092308	-0.101695	-0.056604	0.3	-0.169231	0.111111
46	CARGO	29.2	0	0	0	-0.259259	0.09	-0.036697	-0.2	0.375	-0.036364	0	0	-0.023585
47	MASONITE	29.3174	-0.150812	0.092896	0	0.0525	0.1725	-0.01919	-0.021739	0.111111	0.36	-0.264706	0	0.16
48	SONDOR	32.88	0.166667	0	0.214286	-0.058824	-0.25	0	0.041667	-0.166667	0	0.38	0.210145	-0.3125
49	SABLE	33.23996	0.666667	0	0.08	0.185185	-0.125	0.035714	0.034483	0.1	0.090909	0.055556	0.052632	0
50	STRAND	34.23206	-0.052632	0.111111	0.25	0	0.18	-0.220339	0.086957	0	-0.04	0.041667	0.16	0.206897
51	ZELTIS	34.73	0.03125	-0.090909	-0.25	0	-0.133333	0.025641	-0.3	0	-0.25	-0.047619	0.15	-0.089597
52	GEN-OPTIC	36.1425	-0.025	0.064103	-0.084337	0.184211	-0.055556	-0.011765	0	-0.002381	0.081146	-0.013793	-0.102564	0
53	GROWPNT	36.60768	-0.079365	0	0.206897	0.285714	-0.022222	-0.074074	0.333333	0.05	0.028571	-0.074074	0.0286	-0.105263
54	MARSHALLS	38.04468	-0.02	-0.412245	0.333333	0.111111	-0.005	-0.346734	0.184615	0.137931	0	-0.090909	-0.066667	0.107143
55	RARECO	38.9502	-0.2	-0.325	-0.111111	-0.375	-0.366667	0.578947	0.333333	-0.175	0.060606	-0.028571	-0.411765	0.25
56	ALACRITY	40.43133	0.047619	0.318182	0.673931	-0.263158	-0.214286	-0.018182	-0.148148	-0.021739	0.066667	-0.270833	-0.085714	0.25
57	OAKFLDS	40.7	-0.26	-0.324324	-0.2	0.15	-0.347826	-0.2	0.166667	-0.142857	-0.416667	0.428571	0	0
58	HICORL	41.1675	-0.160714	-0.170213	0.051282	-0.02439	0	-0.225	-0.064516	0.034483	-0.066667	-0.178571	0.521739	0.457143
59	ILIAD	41.6	0	0.353846	-0.045455	0.16	-0.022989	-0.058824	-0.075	0.148649	-0.329412	0.192982	0	-0.044118
60	NATCHIX	45.2738	-0.071429	-0.076923	-0.083333	-0.090909	0.24	-0.032258	0.15	0.072484	-0.121622	-0.023077	0.023622	0.415385
61	HOWDEN	45.59265	-0.222222	0.257143	0.079545	0.252632	-0.016807	-0.074074	-0.03	-0.061856	-0.010989	-0.022222	0.204819	0.05
62	EUREKA	45.696	0	0.076923	0.017857	-0.007018	-0.24735	0.014085	0.027778	0	-0.04955	-0.004739	-0.095238	0.052632
63	NEI-AFR	47.18493	0.097561	0.166667	0.161905	0.096491	-0.048	0.008403	0.016667	0.147541	-0.035714	0.007407	0.133824	0.018158
64	AWETHU	47.33198	0	-0.028571	-0.147059	-0.275862	-0.238095	0.5	-0.166667	-0.25	-0.333333	0.1	0.454545	-0.375
65	BUILDMAX	47.65884	0.057143	0.081081	0	-0.5	0.25	0	-0.4	0.066667	-0.375	-0.4	1	0
66	PUTCO	47.82925	-0.088889	-0.085366	0.466667	0.077273	0.023256	0.181818	0.173077	0.04918	-0.18125	0.137405	0.059259	0.048951
67	WESCAP	48.33245	-0.032609	-0.033708	0.046512	0.022222	0.01087	-0.032258	-0.055556	-0.023529	-0.156627	0.1	0.103896	-0.047059
68	AUTOQIP	50.5402	-0.083333	-0.109091	-0.102041	0	0.204545	-0.056604	-0.12	0	-0.013636	0	-0.170732	0.235294
69	IPROP	50.63671	0.166667	0	0.12	0.109694	-0.08046	0.1525	-0.082569	0.0125	0.037037	0.004762	-0.040284	0.148148
70	RENAISAN	51.10993	0.133333	-0.147059	0.172414	0.352941	-0.222222	0.257143	-0.079545	-0.160494	0.102941	0.066667	0.0375	0.072289
71	PROSPUR	51.75	0	0	0	0	0	0	-0.2	0	0.1875	0.031579	0	0
72	ITECH	53.30984	-0.126437	-0.210526	0.383333	-0.036145	-0.05	-0.078947	-0.114286	-0.193548	-0.24	-0.526316	0.611111	-0.103448
73	GLOPVT	54.289	-0.075	0.189189	-0.090909	-0.1	0.377778	0.052419	0.011494	-0.015152	0.038462	0.003704	0	0
74	FORIM	54.5	0.066667	-0.2375	0.311475	-0.1875	-0.169231	-0.092593	-0.173913	0.078947	-0.390244	0	0.12	0.071429
75	CONTROL	56.63104	-0.0625	0.146667	0.093023	-0.136364	-0.039474	0.027397	-0.106667	0.059701	-0.056338	0.029851	0.188406	-0.02439
76	S&SHOLD	58.053	-0.157895	-0.166667	0.125	-0.088889	-0.219512	-0.21875	-0.12	-0.136364	-0.052632	-0.166667	0	0.3

93	YTHRK	74.498	-0.1	0.233333	-0.153153	-0.095745	-0.082353	-0.230769	-0.1	-0.092593	-0.244898	-0.108108	-0.424242	0.315789
94	STEERS	74.82645	-0.052632	-0.2	0.25	0.3	-0.153846	0.242424	0.016949	0.091667	0.068702	0.035714	0.172414	0.088235
95	BOWCALK	77.30718	0	-0.105882	0.552632	-0.175847	0.042105	-0.090909	0.011111	-0.023626	-0.218391	0.323529	-0.044444	0.104651
96	EXCELL	77.3332	-0.038462	-0.24	0.052632	0	-0.05	-0.131579	-0.090909	-0.166667	0.36	0	-0.117647	0.033333
97	ROMATEX	78.84	0.038062	-0.183333	0.538776	-0.007958	0.002674	0.093333	0	0	0	0	0	0
98	SOVFOOD	79.7661	-0.347826	0.266667	-0.131579	-0.030303	0.125	-0.195402	-0.178571	0.478261	-0.211765	0.044776	-0.214286	-0.127273
99	FRANSAP	81.4334	-0.294118	-0.083333	-0.090909	-0.4	-0.7	0.111111	0	0.25	0	-0.08	0	0
100	CMH	81.50004	0.275	0	-0.117647	0.266667	0.067105	-0.046794	0	0.181818	-0.076923	0.183333	0.110563	0.025641
101	WINECORP	83.57988	-0.04918	-0.051724	-0.272727	-0.1	-0.166667	0.166667	-0.285714	0	-0.08	-0.391304	0.5	0.047619
102	OCTODEC	86.0902	0.133333	0.052941	0.162011	0.009615	-0.032143	0.083333	0.241026	-0.070248	0.022222	0.193478	-0.036145	0.041667
103	CHESTER	87.0155	-0.04	-0.0625	0.022222	-0.130435	0	-0.05	0.236842	-0.06383	-0.090909	-0.125	0.257143	0
104	COATES	88.8	-0.2	0.635	0.045872	-0.078947	0.193651	0.046154	-0.256055	0.302326	-0.151786	-0.021277	0.152174	0.037736
105	PREMIUM	89.6625	0.044444	0.06383	0.3	0.123077	-0.104478	-0.066667	0.142857	0.015625	0	0.076923	0.037857	0.044776
106	ALLIANCE	89.9046	-0.166667	0	-0.04	-0.125	-0.047619	-0.13	-0.511905	0.317073	-0.222222	-0.642857	0.666667	0.12
107	CASHBIL	91.042	0.027027	0.052632	-0.045	0.204188	0	0.2	-0.036233	-0.2	0.181818	-0.173077	0.11	0.193694
108	PRIMA	91.5134	-0.15	0.093137	-0.058824	0.125	-0.055556	0.098039	0.071429	0.05	0.057143	0.04918	0.03125	0.060606
109	MATHOMO	93.56118	-0.086022	-0.047059	-0.419753	0.06383	-0.2	-0.25	-0.166667	0.28	-0.0625	-0.3	0.047619	0
110	RMSPROP	98.96754	-0.083333	0.090909	0.354167	0.076923	-0.022857	0.111111	0	0	0	0	0	0
111	DON	100.1249	-0.153846	-0.090909	0.4	0	0.142857	0.3125	-0.238095	0	-0.1875	-0.076923	-0.25	-0.111111
112	STOCKS	102.99136	-0.2	-0.233333	0.195652	-0.036364	-0.150943	-0.288889	-0.21875	0.2	-0.166667	0	-0.12	0.590909
113	SPURHLD	103.50756	0.108108	0.029268	0.125592	-0.021053	0.215054	-0.00885	0.056075	-0.044248	0.018519	0.063636	-0.059829	0
114	MDMGROW	106.14681	0	0	-0.1	-0.111111	-0.1	0.25	-0.066667	-0.095238	-0.263158	-0.178571	-0.065217	0.046512
115	FUSION	108.1187	-0.2	-0.20625	-0.133858	0.818182	-0.35	0	0.015385	0.136364	-0.1	-0.111111	-0.175	-0.191919
116	METAIR	109.24563	-0.027027	0	0.166667	0.009524	0.005291	0.157895	0.181818	-0.153846	0.045455	0.054348	0.030928	0.04
117	CROOKES	110.28	0.068966	0.080645	0.044776	0.042857	0	0.1	0.131579	-0.093023	-0.012821	-0.038961	-0.054054	0
118	STOCHOT	113	-0.322581	-0.380952	0.269231	0.454545	-0.270833	0.057143	-0.081081	0.294118	0.159091	0.117647	1.087719	0
119	JASCO	116.84504	0.046154	0.117647	-0.078947	0.028571	-0.131944	0.114754	-0.529412	0.0625	-0.529412	0.525	-0.364754	0.225806
120	MIDAS	116.90577	0.22449	0.041667	0.04	0	-0.007692	-0.060465	-0.290484	0.023529	0.004598	0.006865	0.227273	0.02963
121	CONSHU	117.39441	0.233333	0	-0.009009	0	0	0	0	0	0	0	0	0
122	CAPSTAR	121.1634	-0.006623	-0.2	0.025	-0.203252	-0.183673	0.1125	0.101124	-0.234694	0.333333	-0.08	0.163043	-0.037383
123	BATEPRO	122.78616	0.044776	-0.095238	0.093158	-0.07	0.612903	-0.05	0.017544	0.068966	0.458065	0.061947	-0.050992	-0.044776
124	REX-TRUE	125.559	-0.171429	-0.027586	0.702128	0.145833	0.136364	0	0.025	0.04065	0.015625	-0.115385	0.078261	0.177419
125	BELL	125.86352	0.007547	-0.17603	0.009091	0.193694	-0.339623	-0.057143	0.30303	0.023526	0.090909	0	0.416667	0.323529
126	BEARMAN	126.51	0.058824	0.144444	-0.2	0.125	0	-0.055556	0.176471	0.36	0	0.115385	0.068966	0.032258
127	ELBGROUP	127.716	-0.066667	0.011905	-0.12	0.219178	-0.044944	0.058824	0.066667	0.09375	0.238095	0.155385	-0.057143	0.060606
128	TEREXKO	130.14183	-0.193548	0.415	-0.055118	0.083333	-0.046154	0.169355	-0.110345	-0.248062	0.092784	-0.174528	0.055556	0.184211
129	MOULDMED	131.56	0.157143	-0.382716	-0.4	-0.1	0	-0.592593	-0.090909	0.1	-0.272727	-0.25	0.166667	-0.142857
130	SABVEST	132.1984	-0.115385	0.086957	0.472	0.027778	-0.175676	-0.04918	-0.241379	0	-0.086364	0.0199	0.097561	0.044444
131	EMPOWER	133.46172	-0.097222	0.476923	0.0625	-0.019608	0	0	0	0	0	0	0	0
132	KING	136.41565	-0.5	-0.166667	0.35	-0.111111	-0.208333	0.157895	-0.227273	0.058824	0	-0.222222	0.142857	0
133	LITECH	137.88356	0.192661	-0.038462	0	0	0	0	0	0	0	0	0	0
134	ENSERVE	138.38568	-0.155556	0.328947	0.029703	0.057692	-0.181818	0.122222	-0.108911	0.222222	-0.136364	-0.055556	0.164706	0.111111
135	KH-PROPS	138.6575	0.012658	0.0875	0.08046	-0.010638	0.123118	-0.030928	-0.021277	-0.021739	0.055556	0.063158	0.005446	0.085106
136	LASER	140.10217	-0.081633	-0.122222	0.020253	0.091811	-0.409091	0.096154	0.052632	0.033333	-0.016129	0.016393	-0.032258	0.183333
137	GROPPRO	140.8	-0.12069	0.035294	0.200758	0.223533	-0.027778	0.028571	-0.041667	-0.028986	0.074627	0.049944	0.028571	-0.027778
138	DNA SUP	141.78538	0.2	0	0	0	0	0	0	0	0	0	0	0.666667
139	GRINDROD	142.58875	0.096774	-0.111765	0	0.041667	-0.186667	-0.139344	0.428571	-0.066667	-0.142857	0.25	0.006667	0.02649
140	MORIBO	142.8	0.1	-0.272727	0.085	-0.032258	0.52381	0.625	-0.817308	-0.115789	-0.404762	-0.38	-0.032258	-0.133333
141	BOUMAT	143.1954	-0.082278	-0.103448	0.153846	0.6	0.291667	-0.096774	-0.171429	-0.362069	-0.290541	-0.219048	0.219512	0.45
142	FELTEX	143.256	1.1875	0.095238	0.4	-0.031056	0	0	0	0	0	0	0	0
143	AHEALTH	145.1518	-0.169231	-0.078704	0.130653	0.262222	-0.03169	0.123596	0.016667	0.003279	0.038987	0.123779	0.153623	0.030769
144	HEAVEN	148.49856	-0.237288	-0.088889	-0.268293	-0.133333	-0.230769	-0.15	-0.176471	-0.071429	-0.076923	-0.083333	0	0.181818
145	BASREAD	148.77	0.050909	-0.031142	0.332143	0.072386	0.15	0.130435	-0.038462	0.05	-0.257143	0.051282	0.109756	-0.186813
146	AUTOPGE	150.79536	0.363636	0.2	-0.361111	0.304348	0.026667	0.112957	-0.104478	-0.1	-0.059259	0.043307	0.018988	0.074074
147	SAIL	150.86799	-0.055556	0.011765	-0.046512	0.341463	0.090909	0.041667	-0.016	-0.02439	0	0.25	0.066667	-0.0625
148	CORPCAP	151	0.023622	0.215385	0	0.044304	0.030303	-0.017647	-0.11976	-0.047619	-0.321429	0.284211	-0.159836	0.17
149	WESCO	161.23438	0.368421	-0.038462	-0.088	0.219298	-0.038462	0.2	0.233333	-0.027027	0.027778	0.005405	0.075269	-0.0125
150	SEARDEL	164.98636	0.136364	-0.2	0.1	0	-0.027273	0.074766	-0.130435	0.22	-0.016393	0	0.020833	0.458333
151	ATLAS	165.2874	-0.111111	0	0.125	-0.02	0.077098	0.068084	0.052632	-0.04	0.0625	0.039216	0.018988	0.102444
152	ETINGTN	165.7653	0.067123	-0.039474	0.232877	0.022222	0.043478	-0.03125	-0.021505	-0.066667	-0.02381	0.073171	0.193182	0.028571
153	SPUR	167.82864	0.086207	-0.02381	0.300813	-0.02	0.147959	0.037778	-0.022222	-0.022727	0.011628	0.011494	0	0
154	TREMATON	168.525	0	0.1	-0.30303	0.495652	-0.069767	-0.1	0.069444	-0.077922	-0.169014	-0.025424	-0.173913	0.242105
155	ITITECH	169.43505	0	0.090625	0.200573	-0.057279	-0.113924	-0.171429	-0.189655	0	-0.12766	-0.063415	-0.208333	0.526316
156	NEWPORT	169.91262	-0.075758	0.11623	0.015385	0.136364	0.066667	0.025	0.036855	0.035294	0	0	0	0
157	STANTRN	172.75244	-0.036145	-0.25	0	0.126667	-0.30137	0.078431	-0.072727	-0.137255	-0.204545	-0.342857	0.608696	-0.027027
158	GOLDREEF	174.07341	0.130909	0.318328	0.731707	-0.133803	-0.196748	-0.149798	0.22619	-0.038835	-0.030303	-0.645833	-0.411765	0.4
159	SENTRY	174.55776	-0.078125	0.118644	0.015152	-0.014925	-0.090909	-0.203333	-0.100418	-0.069767	-0.37	0.309524	-0.03125	0.290323
160	HUDACO	176.48112	0.079767	0.108108	-0.035088	0.181818	0.030769	0.19403	0.0225	0.0375	-0.096386	0.04	0.025641	0.1875
161	ALEXNDR	179.0074	-0.099359	-0.199288	0.835556	0.1	-0.147727	0.28	-0.385417	0.220339	0.25	-0.012222	0.107656	0.025918
162	SEARTEC	180.09576	-0.071429	-0.123077	0.315789	-0.133333	-0.230769	0.04	0.057692	-0.145455	-0.212766	-0.108108	0.030303	0.205882
163	KTL	185.92868	-0.038961	0.22973	0.206154	0	-0.157407	0.032967	-0.06383	-0.090909	0.0625	0.019294	0.047619	0.090909
164	HARWILL	190.3825	-0.045455	-0.028571	-0.019608	0	-0.03	-0.010309	-0.15625	-0.012346	-0.0375	0.03		

186 SYCOM	258.76746	0.022222	0.086043	0.08125	0.030829	0.018692	0.036697	0.106195	-0.04	0.056917	0	0.035593	0.031097
187 TOCO	259.8785	0.075	-0.186047	0.571429	-0.545455	0.04	-0.192308	-0.380952	0.153846	-0.266667	-0.090909	0	0.8
188 BATSA	262.926	0.37234	0.147287	0.121622	0.119759	0.275556	0.020906	0.015358	0	0	0	0	0
189 APEX	263.8698	0	0	0.085714	0	0.027105	0.029412	-0.057143	0	-0.030303	0.03125	0.072121	0.064516
190 CONCOR	263.8896	-0.077419	-0.006993	0.297183	0.377778	-0.008065	-0.004065	-0.093878	-0.054054	-0.333333	0.072857	0.342466	-0.081633
191 WETHLYS	267.74964	0.133333	0.235294	0.095238	0.217391	-0.160714	0.017872	0.021277	-0.0625	-0.115556	0.130653	0.088889	0.244898
192 OMNIA	272.1303	-0.026316	-0.027027	0.090278	-0.016561	0	0.232877	0.027778	-0.135135	0	-0.0125	0.063291	0
193 CFC	279.5456	-0.023333	0.083618	0.007874	-0.045625	-0.163333	0.25498	-0.085714	-0.131944	-0.04	0.135	0.051852	0.109155
194 FURNCAP	280.29924	-0.136527	0.137309	-0.012195	0.025	0	0.036585	0.076471	0.420765	0.016154	-0.975385	-0.375	4.75
196 RAINBOW	281.73046	0.115385	0.172414	0.117647	0.105263	-0.238095	-0.0625	-0.066667	-0.214286	-0.263636	0.135802	-0.195652	0.135135
196 WBHO	285.77865	0.027778	-0.016216	0.688813	-0.033333	-0.034483	0.107143	-0.129032	0.407407	0.060526	0.076923	0.130952	0.063158
197 CORNICK	290.39034	-0.125	-0.271429	0.078431	0.527273	-0.095238	0.026316	0	0	0	0	0	0
198 BRIMSTON	293.72973	0.214286	0.176471	0.05	-0.038095	0.089109	0.071429	-0.16	-0.174603	-0.192308	-0.02381	0.097561	0.155556
199 ROADCOR	295.18632	0	0.086207	0.263492	-0.233668	-0.114754	-0.074074	-0.06	-0.148936	-0.205	-0.339623	-0.52381	0
200 OZZ	302.41134	-0.085366	-0.026667	0.061644	0.2	0.05914	0.22335	0.012448	0.008966	0.086207	-0.059524	0.054852	0.0544
201 VOLTEX	306.52228	0.15	0.069565	-0.142259	0.053659	-0.060185	0.320197	-0.067164	0.06	0.05283	-0.022556	0.173077	0.098361
202 UCS	308.5542	0.103226	0.432749	0.106122	0.125461	-0.059016	0.045296	0	-0.04	-0.131944	0.16	-0.034483	0.125
203 SMGHOLD	310.8025	-0.25	0	0	0	0	0	0	0	0	0	0	0
204 MMWTECH	311.70048	-0.081481	-0.129032	-0.287037	0.103896	-0.376471	-0.358491	-0.058824	-0.09375	-0.103448	-0.269231	-0.368421	0.5
205 LENCO	314.81004	0.162791	0.08	0.240741	-0.149254	-0.017544	0.214286	0.014708	0.057971	0.008219	-0.021739	0.111111	-0.075
206 RETCORP	316.14492	-0.146154	-0.135135	0.125	0.25	-0.281481	1.443299	-0.101266	-0.032864	0.101942	-0.0837	0.096154	0.030702
207 COASTAL	319.15088	-0.001176	0.060071	0.016667	-0.032787	0.073446	-0.057895	-0.050279	-0.035294	0.097561	-0.001111	0.001112	-0.011111
208 DELHOLD	322.73913	-0.358974	-0.1	0.333333	0.166667	-0.2	0.214286	0.647059	0.026786	-0.02087	0.090909	0.090909	0.106066
209 METKOR	325.3068	0.016043	-0.078947	0.314286	-0.065217	0.069767	0.043478	0.18625	0.071429	-0.166667	-0.06	0.106383	0.586154
210 PIONEER	335.62461	-0.305263	0.060606	0.314286	0.070652	0.128223	-0.121951	0.166667	-0.047619	-0.1	0.166667	-0.013333	-0.042105
211 LANGEBOEG	336	0.039216	0.284151	-0.014925	-0.015152	0.015385	-0.074242	0.516667	-0.010989	-0.004444	0	0	0
212 FASIC	339.08658	-0.176923	0.196262	0.25	-0.025	-0.103205	-0.044776	-0.078125	-0.254237	-0.118182	-0.226804	0.115	0.40625
213 ELEXIR	345.25152	-0.13125	-0.129496	-0.107438	-0.166667	-0.388889	-0.218182	-0.511628	0	-0.428571	-0.166667	0.7	-0.235294
214 NRB	346.05548	-0.411765	0	0	0	0	0	0	0	0	0	0	0
215 BUSBY	349.71	0.295455	-0.122807	0.12	0.303571	-0.273973	-0.018868	0.153846	-0.05	0.008772	-0.160714	-0.021277	0.173913
216 GRINAKER	351.54	-0.147826	0.204082	-0.023729	-0.106195	-0.009901	0.04	0.125	0.418803	0.020482	0.006061	0.024096	0
217 AQUILA	368.74988	-0.142857	-0.141667	0.116505	0.173913	-0.281481	0.42268	0.043478	-0.236111	0.081818	0.117647	-0.172932	0.045455
218 SPESCOM	385.34665	0.032	0.112403	0.167247	0.020896	-0.187135	0.007194	-0.375	0.011429	-0.073446	-0.036585	-0.164557	0.477273
219 CITYLDG	388.12752	-0.259259	0.441	0.242857	0.068966	-0.086022	-0.058824	0.10625	0.068362	-0.032967	-0.034091	0.058824	0.033333
220 OMEGA	390.2457	-0.131579	-0.151515	-0.142857	-0.083333	-0.181818	-0.388889	-0.272727	0.625	0	-0.076923	0.083333	0.153846
221 ITLITE	394.96827	-0.015152	-0.015385	0.35	0.072261	-0.021739	-0.022222	0.022727	0.066667	0.05	0.04	0.057692	0.076384
222 SEAHARV	433.83353	-0.072165	-0.005556	-0.159218	0.262458	-0.039474	0.265753	-0.022222	-0.022727	0	0.046512	0.166667	0.172381
223 KOLOSUS	442.716	0.5	-0.047619	0	-0.125	-0.085714	-0.1875	-0.038462	0.04	0.076923	-0.035714	0	0.407407
224 LA-GROUP	443.50479	-0.014286	-0.117391	0.461412	-0.05618	0.010714	-0.034158	-0.073171	-0.177632	-0.016	0	-0.04065	0.059322
225 KVV-BEL	446.46	-0.086667	-0.00438	0.140762	0.001333	0.198402	0.166667	-0.019048	-0.058252	-0.020619	0.015789	0.043956	0.073684
226 ASTRAPAK	451.0429	-0.105263	0.147059	0.538462	-0.016667	-0.145763	0.111111	-0.175	-0.220779	0.111111	-0.24	0.315789	-0.12
227 BRANDCO	451.9592	-0.164948	-0.17284	0.059701	-0.169014	-0.186441	-0.166667	0.3	-0.192308	0.047619	-0.090909	0	0.2
228 SASANI	452.09108	0.047619	0	-0.045455	-0.180952	-0.011628	-0.152941	-0.131944	-0.04	-0.083333	0.5	-0.169697	0.058394
229 FEDICS	452.7	0.16	-0.066667	0.083744	-0.05	0.016746	-0.007765	-0.053398	0	0.102564	-0.034884	-0.014458	0.125
230 TMX	457.51335	0.029703	0	0.394231	0.041379	0	0	0	0	0	0	0	0
231 AME	465.4524	-0.037037	0.059615	0.092593	-0.016949	-0.224138	0.111111	-0.36	0.09375	-0.228571	-0.185185	0.136364	-0.32
232 APULTEC	465.9304	-0.230769	0.25	0	0.226	-0.065574	0.052632	-0.083333	0.127273	-0.135484	0.007463	-0.185185	0.313636
233 WACO	465.96508	0.055556	0	0.263158	0	0.0625	0.058824	0.111111	-0.13	0.040816	0.127451	0.130435	0
234 AFBAND	466.8475	-0.105263	-0.117647	0.173333	-0.102273	-0.443038	0.090909	-0.041667	0	0.173913	0.111111	-0.166667	-0.14
235 HOMECHOIC	467.28628	0.255814	0.092593	0.144068	0.051852	-0.105634	0.165354	0.040541	-0.12987	-0.059701	0.128571	0.265823	-0.022222
236 I-J	471.57866	-0.1	0.055556	0.052632	-0.02	-0.306122	0.294612	-0.051724	0.393939	-0.026087	0.090957	0.012876	0.016949
237 SILTEK	473.73556	-0.04271	0.307692	-0.038824	-0.068323	-0.193333	0.206612	-0.136986	0.071429	-0.013333	-0.061538	0.016393	-0.008065
238 FRAME	478.94004	-0.04918	-0.060345	-0.027523	-0.037736	0.011765	0.039216	0.264151	0.08209	-0.084138	-0.064615	0	0.151316
239 INVICTA	485.6988	0.12	-0.119048	0.148649	0.117647	0.052632	0.005	0	0.052632	-0.05	0.052632	0.065	0.117073
240 SASFIN	497.04066	-0.037037	-0.038462	0.036	0.065637	-0.130435	0.091667	0.007634	-0.011364	-0.034483	-0.012397	-0.171548	-0.010101
241 OCEANA	502.8821	-0.23	-0.090909	0.031429	0.108033	0.0575	0.132151	-0.06383	-0.068182	0	-0.02439	0.2125	0.145773
242 DELFOOD	506.44268	0.044872	0.282209	0.339713	0.035714	-0.206897	0.630435	0.6	-0.225	0.045161	-0.098958	0.195402	-0.057692
243 ADVANCED	511.64006	0	0.036232	0.048951	-0.146667	-0.375	-0.1	0.019444	0.089918	-0.1875	-0.138462	0.107143	-0.322581
244 RELYANT	529.37794	-0.142857	0.533333	0.576087	-0.034483	-0.085714	-0.21875	-0.04	0.19375	0.123909	0.510334	0.052632	-0.1
245 RADIOSPR	535.04255	0.066667	0.09375	0.085714	-0.118421	-0.149254	-0.254386	0.211765	-0.087379	0.191489	0.125	0.129032	-0.028571
246 UNIHOLD	542.15252	-0.105714	-0.233227	0.30625	0.009709	-0.214744	0.061224	0	0.053846	-0.19708	0.120455	-0.166667	0.32
247 INFINITI	557.12696	-0.351064	0.057377	-0.186047	-0.219048	-0.585366	-0.470588	0.055556	-0.210526	-0.266667	-0.181818	0.333333	-0.333333
248 TOYOTA	557.55828	0.037037	0.142857	-0.134375	0.152416	-0.083871	0.302817	-0.054054	0.028571	-0.1	0.024691	0.063253	0.104816
249 BJM	560.30742	0.079365	0.088235	0.121622	0.024096	0.117647	0.258947	0.037975	-0.105891	-0.168182	0.131148	-0.043478	0.146485
250 VIKING	563	-0.017544	-0.080357	-0.027184	-0.001996	-0.03	-0.010309	-0.166667	0.125	-0.177778	-0.054054	-0.002857	-0.025788
251 IOTA	565.3296	0.821561	0.255102	0.211382	-0.008054	-0.100135	-0.030075	-0.16279	-0.175439	-0.359574	-0.009667	0	0.006711
252 CHERMSERVE	573.879	-0.0625	0.066667	-0.00875	0.419355	0.027273	0.013274	0.043668	0.139331	-0.144444	-0.021645	0.070796	-0.024793
253 NUWORLD	575.3059	0.034483	0.066667	0.25	-0.15	-0.197059	0.025641	0.010714	-0.30742	0.096939	0.009302	0.398157	0.133333
254 LESRNET	580.13536	0.122388	0.172872	0.020408	-0.022222	-0.045455	-0.047619	-0.075	-0.148649	-0.149206	-0.160448	0.311111	0.098305
255 ADCORP	608.75016	0.25	0.115556	0.141833	0.052632	-0.133333	0.046154	-0.068176	0.037402	-0.14611	-0.177778	0.381081	-0.00665
256 CONNECT	613.9152	-0.211111	-0.274648	-0.339806	-0.147059	-0.068966	-0.481481	-0.142857	-0.208333	0	-0.315789	0.615385	0.333333
257 UNISERV	634.25446	0.117188	-0.038462	0.032727	0.073944	-0.013115							

279 DELTA	983.81166	0.05	0.261905	0.041698	-0.132841	0.108511	0.147793	0.005017	-0.159068	-0.052	0.008439	0.025105	0.085714
280 TRIDELTA	986.95584	-0.114286	0.451613	0.138889	-0.04878	-0.107692	0.057471	-0.130435	0.03125	-0.406061	-0.612245	-0.357895	-0.032787
281 PERSBEL	990.16218	1	-0.125	-0.285714	0	-0.2	0	0	0	0	0	0	0
282 NETCARE	1016.692	-0.032258	0.022222	0.304348	-0.05	-0.236842	0.103448	-0.03125	-0.16129	-0.230769	0.016667	0.04918	0.40625
283 FINTECH	1022.7098	0.142857	0.267857	-0.056338	0.067164	0.204196	0.161677	-0.216495	-0.078947	-0.085714	0.101563	-0.170213	0.179487
284 MARTPROP	1038.26415	0.074074	-0.034483	0.158929	0.1	0.006061	-0.006024	0.169697	-0.092391	0.061377	0.012121	-0.02994	0.17284
285 TELJOY	1044.48	0.196512	-0.019608	0.12	-0.196429	-0.022222	0.126136	-0.12449	0.060606	0.186813	0.277778	0.046377	0.006993
286 MR PRICE	1085.47792	0.269231	0.287879	0.247059	-0.056604	-0.08	0.296739	-0.016949	0	0	0.086207	0.150794	-0.030345
287 DISTELL	1090.6	-0.086957	0.130952	0.157895	0.018182	0.316071	0.132867	0.049383	-0.005882	-0.076923	-0.006803	0.027397	0.266667
288 FASHAF	1099.0845	0.423077	0.432432	0.207547	0.0625	-0.117647	0.083333	-0.092308	-0.033898	0	-0.017544	0.071429	-0.25
289 PSL	1102.9158	0.04	0.274038	0.335849	0.016949	-0.147222	0.05	-0.095238	0	0	0	0	0
290 MCCARTHY	1103.5515	-0.150538	-0.113924	0.671429	0.581197	-0.27027	-0.096296	-0.008197	-0.041322	0.25	0.241379	0.305556	0.042553
291 GENBEL	1123.59	0.076923	-0.047619	0.18	0.006356	-0.084211	-0.002299	-0.0553	-0.063415	-0.081081	0.005882	0.152047	0.243655
292 PSG	1136.33632	0.011236	0.3	0.239316	0.089655	-0.177215	0.019608	-0.053846	-0.215447	-0.088083	0.089773	0.065693	0.158416
293 MONEX	1156.80024	-0.11842	-0.259259	-0.04	-0.14583	-0.058824	0	-0.075	-0.02973	-0.108635	-0.234375	0.326531	0.046154
294 FRONTRNGE	1158.08975	0.325301	-0.054545	0.201923	0.069333	-0.162095	-0.059524	-0.177215	0.1	-0.125874	0.16	0.137391	0.575758
295 HLH	1170.71748	-0.23	0.071429	0.121212	0.189189	-0.138636	0.07124	0.125	0.066667	0.25	-0.066667	0.005357	0.133929
296 AECI	1193.5	0.133333	0.047059	0.053371	0.516484	-0.043478	0.022727	0.17037	0.049051	0.214724	-0.065657	0.024324	-0.007905
297 MEDCLIN	1212.584	-0.008	-0.012097	0.126531	-0.003623	-0.127273	0.189792	0.018182	-0.053571	0.05283	0.039427	0.137931	0.143788
298 RAG	1220	0.12	-0.25	0.142857	0.375	-0.139394	-0.06338	-0.097744	-0.341667	-0.037975	0.710526	-0.269231	0.421053
299 POWTECH	1243.2814	0.161111	-0.047847	0.072864	0.194379	-0.009804	0.302083	-0.304	-0.11484	-0.139535	0.008108	0.198391	0.029083
300 DALYS	1277.86912	0.026943	-0.038462	0.146667	0.209302	-0.144231	0.105618	0.097561	0.005667	0.003759	0.048689	0.107143	0.072581
301 ALTECH	1299.47973	-0.021277	0.286957	0.013514	0.05	-0.015873	0.003344	-0.16	0.111111	-0.078571	-0.077519	0.113445	0.011321
302 SA-EAGLE	1304.74152	-0.047619	-0.06	-0.000532	0	-0.06044	0.081871	0.027027	0.02	0.052632	-0.04	-0.020833	0.06383
303 UNITRAN	1306.79172	0	-0.043478	0.118636	0.099174	0.12782	-0.133333	0.080769	0.035587	-0.006529	0.071429	0.166667	0.034286
304 SANTAM	1320.74048	0.061662	-0.022727	0.18863	0.25	-0.099099	0	0.01	-0.065347	-0.029661	0.101965	0.090909	0.122222
305 MOLOPE	1331.03502	0.028037	0.050909	0.00346	-0.043103	-0.099099	-0.21	-0.113924	-0.442857	-0.307692	0.111111	-0.2	-0.166667
306 INTRUST	1331.63096	0.114286	0.076923	0.095238	-0.091304	0.129187	0.144068	-0.055556	-0.137255	-0.015909	0.120092	-0.985567	-0.142857
307 ELLERINE	1348.41735	0.145669	0.333333	0.260309	-0.01227	-0.09176	0.113689	-0.05	0.052632	-0.027083	0.049251	0.301224	0.031746
308 M-NETSS	1375.3314	0.071429	0.01	0.156766	0.074627	0.083333	0.064103	-0.024096	0.022222	0.002415	0.096386	0.252747	0.017544
309 ILLOVO	1377.39965	-0.0336	-0.056291	0.087719	0.048387	0.023077	0.027068	-0.141353	-0.036778	0.254545	-0.07971	-0.031496	0.243902
310 TEMPORA	1427.3712	0.105568	-0.056931	0.102362	0.171429	-0.113821	-0.027523	0.251415	0	0.034615	-0.01487	0.124528	0.078859
311 MOBILE	1427.58989	-0.088889	-0.268293	-0.013833	-0.017241	-0.035088	-0.054545	0.288462	-0.328358	0.181556	-0.153846	-0.318182	0.433333
312 OUTSORS	1433.96657	0.230222	0.176471	0.143	-0.019366	-0.233393	-0.01171	0.011848	-0.255269	-0.062893	0.020134	-0.391447	0.108108
313 OTK	1439.59599	-0.019355	-0.059211	0.398601	0.04915	-0.037037	0.012821	-0.063291	-0.189189	-0.083333	0.163636	0.091469	0.051051
314 HIVELD	1466.44663	-0.057239	-0.107143	0.108	0.396226	-0.162162	0.016129	0.174603	0.002703	0.01897	-0.148936	0.1625	0.110215
315 AVIS	1482.4104	-0.023077	0.283465	0.128834	-0.032609	0.023596	0.118551	-0.034653	-0.020513	-0.109948	0.058824	0.162222	0.081731
316 PPC	1509.555	0	0.027027	-0.026316	0.163514	-0.051103	0.025	0.121951	0.128261	-0.200385	0.084337	0.066667	0.142708
317 TIGON	1530.61104	0.075269	-0.05	-0.052632	0.555556	-0.214286	0.181818	-0.161538	0.050459	0.213974	0.18705	-0.090909	0.146667
318 GARDIAN	1554.1825	-0.146154	-0.009009	-0.090909	-0.002	0.031563	-0.046185	-0.157895	-0.022	-0.166667	0.015385	0.424242	0.223404
319 ENERGY	1565.40847	-0.111111	-0.025	0.25641	0.204082	-0.084746	-0.050926	0.214634	-0.040161	0	0.066946	0.270588	-0.049383
320 MGX	1568.228	0.232323	0.180328	-0.005556	-0.044693	-0.137427	0.016949	-0.131667	0.074856	-0.133929	0.045361	0.100592	0.078853
321 MALBAC	1571.7	0.09434	0.034483	0.25	-0.066667	0	0.208571	0	0.012048	-0.047619	0.1125	0.123596	-0.06
322 NLUCKICKS	1580.43237	0.182609	0.132353	0.038961	0.025	0.117195	-0.005495	-0.138122	0.096154	-0.076023	0.126582	0.132697	0.265
323 PIKWIK	1619.016	0.333333	0.033333	-0.032258	0.166667	-0.169057	0.107143	-0.080645	0.140351	-0.092308	0.166102	0.102994	0.103723
324 PARADIGM	1720.93142	0.118519	0.15894	-0.057143	-0.155556	-0.174641	-0.281159	-0.53629	-0.06087	-0.351852	0.028571	-0.097222	-0.015385
325 CCH	1726.431	0.321154	0.018923	-0.015714	-0.085631	-0.088889	-0.067944	-0.11028	0.109244	-0.208333	0.315789	-0.318182	0.012658
326 SISA	1772.80544	-0.041237	-0.193548	0.066667	0.302632	-0.010101	0.428571	-0.021429	0	-0.20438	0.190476	0.16	-0.068966
327 RAI	1817.45592	0	-0.118644	-0.038462	-0.206667	-0.058824	0.071429	-0.083333	-0.190909	-0.135955	0.074122	-0.03753	0.119497
328 TIWHEEL	1818.34875	0.049123	-0.150502	0.122047	0.122807	-0.046875	0.065574	-0.130769	-0.109735	-0.149105	0.285407	-0.032727	0.024436
329 SAAMBOU	1829.19	-0.055556	0	0.047059	0.067416	-0.084211	0.229885	-0.028302	-0.106796	-0.059783	0.109827	-0.014063	0.117021
330 CTP	1933.10586	-0.005988	0.156627	0.254167	-0.003322	-0.204167	0.141361	0.007339	-0.102914	0.055838	0.011538	0.045627	0.036364
331 HCI	1977.6777	0.063158	0.291089	0.050613	-0.049635	-0.139785	0.069643	0.001669	-0.508333	-0.254237	0.177273	0.490347	0.295337
332 AFROX	2117.53222	0.214286	-0.058824	0.1875	0	-0.105263	0.054706	0.306818	-0.13913	-0.005051	0.15736	0.014035	0.181416
333 SA-DRUG	2121.16	-0.027304	-0.017544	0.139286	0	0.062696	0	0	0	0	0	0	0
334 KERSAF	2164.5311	-0.040741	-0.011583	-0.208984	-0.022901	0.09375	0.166667	0.030612	-0.160396	0.122642	0.036638	-0.012474	0.12
335 M&R-HLD	2428.92	-0.096774	-0.242857	0.226415	0.457692	-0.205805	0.013289	0.180328	0.247222	-0.042316	0.116279	0.151163	-0.062626
336 TRUWTHS	2452.59346	0.484848	0.244898	0.083607	-0.038168	-0.174603	0.201923	-0.16	0.238095	-0.105385	0	0	0.217391
337 TIB	2481.6	0.34375	-0.053437	0.190955	0.082278	-0.1423	0.140909	0.015936	0.078431	0.000291	-0.0625	0.058824	0.25
338 PROFURN	2491.64052	0.306122	0.190625	0.25	-0.070213	-0.084668	0.1575	0.058315	-0.069388	-0.013158	0.182222	0.146617	0.111475
339 A-V-I	2648.82	0.033557	0	0	-0.012987	-0.163158	0.288994	-0.56044	0.138889	0.117073	0.255814	0.018519	0.083636
340 AMB	2693.82134	0.046957	0.196013	0.083333	-0.102564	-0.085714	-0.15	-0.025735	-0.34717	-0.395954	0.019139	-0.112195	0.197802
341 CADSWEP	2701.67755	-0.069182	-0.006757	0.134558	0	-0.012195	-0.030864	0.146497	0.061111	0.00534	0.005236	0.041667	0.16
342 TEKGOR	2773.86	0.25	-0.018725	0.143229	0.070615	-0.06383	0.106818	0.026694	0.042	-0.006123	-0.0625	0.0625	0.262745
343 SAFREN	2832.596	0.022133	-0.240157	-0.108808	-0.017442	-0.002281	-0.034188	0.088496	0.04065	-0.002604	-0.206266	0.032895	0
344 TRENCOR	2975.83374	0.051163	-0.323009	0.018301	-0.006536	-0.082895	0.219512	0.235294	-0.247619	0.043038	0	-0.524691	0.192208
345 ALEXFBS	3026.08845	0.309524	0.081818	0.256303	0.063545	0.006289	-0.0125	0.017595	-0.103774	-0.150877	0	0.177107	0.166667
346 ISCOR	3047.59	0.056604	-0.053571	0.45283	0.279221	-0.228426	0.243421	0.153439	0.036967	0.247788	0.025862	-0.142857	0.142157
347 POLIFIN	3102	0	0.14	-0.140351	0.541667	-0.121622	-0.038462	0.352	0.153846	0.025641	0	0	0
348 BRAIT	3283.358	0.007375	-0.084919	0.1824	-0.133965	0.120313	-0.079498	-0.0					

372 RAD	4963.4	0.070423	-0.25	0.605263	-0.08306	-0.112038	0	-0.208054	-0.118644	-0.009615	-0.118812	-0.505618	0.004545
373 SAPPI	4963.884	-0.015385	-0.013393	0.180995	0.683908	-0.136519	0.16469	0.255656	0.010811	0.042781	-0.129915	0.088409	0.118231
374 LIBVEST	4963.93464	-0.069231	0.599174	0.094574	0.101449	0.048246	0.046025	0.012	0	0	0	0	0
375 WOOLIES	5079.79175	0.148276	0.141141	0.359211	0.011765	0.007752	-0.146154	-0.099099	0.1	-0.039773	0.036145	0.065116	-0.104803
376 METCASH	5098.8042	0.192308	0.021505	0.010526	0.0625	-0.068627	0.065263	0.05	-0.026667	-0.060665	0.0625	0.141176	0.210481
377 COROHL	5144.802	0.078184	0.153216	0.014199	0.062	0.007533	0.196262	-0.101563	-0.104348	-0.07767	0.208421	0.071429	0.143089
378 ABI	5284.776	-0.144737	0.061538	0.130435	0.051282	0.021707	0.207317	-0.040404	-0.021053	-0.07957	0.063084	0.03033	0.125402
379 MIHH	5365.10414	0.278846	0.097744	0.363014	0.077889	-0.125874	0.333333	-0.1	-0.155556	0.005263	0.518325	0.37931	-0.1275
380 BOECORP	5381.89	0.166667	0.207792	-0.021505	0.010989	0.043478	0.040208	-0.080808	-0.230769	-0.028571	0.147059	-0.038462	0.2696
381 METLIFE	5482.6	0.208054	0.122222	-0.019802	-0.025253	-0.117098	0.0625	0.106145	-0.210101	-0.117647	0.086957	0.1	0.315455
382 PEPKOR	5549.28926	-0.2125	0.402116	0.033962	-0.003704	-0.174721	0.094595	-0.18107	0.012563	0.002481	0.199005	0.041494	0.155378
383 CGSMITH	5631.252	-0.026217	0.134615	0.118644	-0.072727	-0.055556	0.217993	-0.112392	0.051948	0.04321	0.177515	0.095477	0.16055
384 SHOPRIT	5760.8774	-0.04878	0.121795	0.037143	-0.083333	-0.060606	0.073548	-0.266827	0.090164	-0.012782	0.053846	0.175182	0.130435
385 ABIL	6044.34462	-0.05	-0.042105	0.153846	0.028571	-0.125	0.150794	-0.117241	-0.341146	-0.237154	0.051813	0.172414	0.067227
386 NAIL	6236.05992	0.033708	-0.163043	0.051948	-0.037037	-0.115385	0.101449	0.05	-0.310777	-0.054545	0	0.038462	0.292593
387 FEDSURE	6594.064	0.093478	-0.00994	0.022791	0.096	-0.014599	0.174074	-0.126183	-0.150722	-0.135135	0.02875	0.059538	0.146789
388 GENSEC	6742.45	0.008091	-0.036918	0.39	-0.01697	-0.081381	0.272483	0.008439	-0.127615	-0.18705	-0.011799	-0.062687	0.234076
389 TIGBRANDS	7256.145	-0.034483	-0.05	0.06391	-0.042403	-0.082103	0.11809	-0.122727	0.07772	-0.036538	0.093812	0.080292	0.221537
390 LIBSIL	7724.525	0.054545	-0.051724	0.050182	-0.355634	0.016393	0.080645	0.049751	-0.009479	-0.998086	0	0	0
391 PRIME	8004.99024	0.01943	-0.150877	0.041322	0.031746	-0.313077	0.069429	-0.041885	-0.137978	-0.084416	0.049645	-0.148649	0.285714
392 REMBR-BEH	8186.4	0.244076	-0.11296	0.201754	0	-0.010949	0.217712	-0.09697	0.02349	-0.038328	-0.086207	0.166038	0.262136
393 ADCOCK	8186.62	0.088235	-0.064865	0.098266	0.005263	0.062827	0.067332	-0.158879	0.111111	-0.2	0.3125	0	0.028571
394 JOHNNIC	9079.31	0.169065	-0.104615	0.347079	0.02551	-0.121891	0.11898	0.093038	-0.020071	-0.048193	0.063291	0.32619	0.294794
395 INHOLD	9652.46844	0.026042	0.116751	-0.036364	-0.003774	-0.042614	0.111523	-0.031532	-0.116279	-0.110526	0.153846	0.126795	0.084559
396 LIB-HOLD	9659.436	-0.008746	0.102941	0	0.082949	-0.034043	-0.123348	-0.015075	-0.035714	-0.304762	0.162791	0.133333	0.135294
397 BOE	10969.2	0.217848	0.224138	-0.03169	0.1	-0.009917	0.010017	-0.041667	-0.217391	-0.02	0.21542	-0.085821	0.245918
398 IMPERIAL	11655.75132	0.138889	0.036585	0.176471	0.006	0.003976	0.188119	-0.033333	-0.037931	-0.050179	0.075472	0.105263	0.068254
399 DIDATA	12338.14568	0.104	-0.086957	0.087302	-0.010949	-0.081181	0.072289	-0.097378	0.047718	-0.055446	0.249476	0.073826	0.20625
400 RMBH	12441.36954	0.221053	-0.12069	-0.105588	0.082873	-0.076531	0.102762	-0.013026	-0.086294	0.016667	0.134208	0.127451	0.13913
401 BIDVEST	12455.97724	0.105386	0.012712	0.056485	-0.013861	-0.100402	0.125	-0.037698	-0.101031	-0.074748	0.115	0.179372	0.142586
402 BEVCON	13502.172	-0.04806	-0.113821	0.177982	-0.071651	-0.016779	0.095563	-0.043614	-0.014658	0.090909	0.05303	0.093525	-0.988882
403 SANLAM	15345.9	-0.145299	-0.116	0.208145	0.121723	0.025042	0.164495	0	0.013986	-0.096552	0.091603	0.025532	0.189488
404 COMPAREX	18001.47708	0.104603	-0.076761	-0.008247	-0.101871	-0.098838	-0.02439	-0.073684	0.07892	0.084881	-0.022005	-0.0475	0.131234
405 INVSTEC	18126	0.075	0.104186	-0.035383	0.027948	-0.052676	0.147982	-0.039526	-0.127572	-0.080189	0.109744	0.147759	0.109756
406 SBIC	18744.71	0.052778	-0.051715	-0.005682	0.057143	-0.048649	0.133523	0.047619	-0.090909	0.02	0.09375	0.028571	0.18287
407 VENFIN	18849.42	0.252778	-0.087479	0.093827	0.042889	-0.040043	0.13416	-0.080517	-0.014054	0.013094	0.004372	0.051143	0.213251
408 LIBERTY	20907.146	-0.001235	0.054388	-0.073857	0.151832	-0.045455	-0.079762	-0.036223	-0.042953	-0.327072	0.212766	0.078947	0.154472
409 SASOL	21003.96	-0.038202	0.128505	0.289855	0.37377	-0.140811	0.195833	0.063879	-0.034934	0.064706	-0.095238	0.120813	0.090715
410 NEDCOR	23078.65	-0.020588	-0.091592	-0.009256	0.027211	-0.062914	0.210247	0.039416	-0.05	-0.00597	-0.034535	0.034215	0.070677
411 ABSA	25908	0.066308	-0.092437	0.092593	0.074576	-0.070978	0.179626	0	-0.083455	-0.249201	0.065957	-0.06986	0.200644
412 SABPLC	49837.2	0.017154	-0.081633	0.188889	-0.056075	-0.019802	0.058586	-0.045802	0	0.02	0.054902	0.078067	0.086207
413 FIRSTRAND	50692.95	0.133956	-0.100275	-0.08626	0.109983	-0.099085	0.167513	-0.033333	-0.074963	0.004862	0.158065	0.05493	0.1749
MARKET FACTOR	1999	0.025252	0.01919	0.098129	0.049094	-0.059191	0.038459	-0.020665	-0.016527	-0.044703	0.010512	0.050302	0.165263

	99MC	2000JAN	FEB	MAR	APR	MEI	JUN	JUL	AUG	SEP	OCT	NOV	DES
1 INDFIN	1.12	-0.04167	0	-0.2029	0	0.072727	-0.0678	0.254545	0.115942	-0.02597	0.106667	-0.01205	0.097561
2 TOLARAM	1.398	-0.13333	0.923077	0	0	-0.2	0	0	0	0	0	0	0
3 PACIFIC	2.35872	0	0	0	0	0	0	0	0	0	0	0	0
4 JEMTECH	2.8	0.5	0.666667	0.2	-0.08333	-0.09091	-0.3	-0.14286	0.666667	0	-0.2	-0.5	-0.25
5 ADONIS	2.9725	0	-0.42222	0	0.538462	-0.375	1	0	-0.01	-0.0404	-0.47368	0.04	0
6 PALS	3.1	0	-0.38	0.193548	0	-0.32432	0.04	1	0.057692	0.127273	0.032258	0.083333	-0.07692
7 DNA SUP	3.51534	0.023077	0.578947	-0.2381	-0.1375	-0.16667	-0.14783	0.265308	0.056452	-0.31298	-0.28889	-0.09375	0.172414
8 PACHOLD	3.5409	-0.35714	0	0	0	-0.11111	0	-0.25	0	0	-0.66667	0	0
9 ANBEECO	4.04406	0	0	0	0.166667	-0.14286	-0.03333	-0.13793	0	-0.12	-0.18182	-0.55556	0
10 NICTUS	4.1145	0	0	0	0	-0.16667	0.6	0.625	0.015385	0.212121	0	0	0
11 QUICKCO	4.3524	0	0	0	0	0	1	0	0	-0.5	0	0	0
12 DAEWOO	4.644	0.5	-0.38889	-0.18182	-0.11111	0.125	-0.33333	-0.16667	0.4	0.285714	-0.33333	0	0
13 AMLAC	5.25	-0.1	-0.22222	0	-0.04762	-0.5	-0.5	44.4	1.237885	-0.13386	0	-0.54545	0.175
14 CORWIL	5.4666	0.461538	-0.14474	-0.13846	0	0	-0.03571	0	0	-0.25926	-0.2	0.5625	0
15 ADMIRAL	5.94201	0.5625	-0.28	0.666667	-0.23333	0.043478	-0.08333	-0.13636	-0.21053	0	-0.33333	0	-0.4
16 VALAUTO	6.6	0	0	-0.05	-0.07895	0	0	0	0	0	0	0	0
17 TISEC	6.62376	0.366667	-0.53659	1	0.210526	-0.47828	-0.16667	0.45	-0.17241	-0.29167	0.235294	-0.04762	0.1
18 WINBEL	6.77443	1.125	0.235294	-0.28571	-0.13333	0.230769	-0.1875	-0.15385	-0.09091	0	0.7	0.058824	0.077778
19 VALCAR	7.425	0	0	0	0	0	-0.25	0	0	0	0	0	0
20 CLYDE	7.568	0	-0.43182	0.2	0.166667	0.714286	-0.14583	-0.1	0	-0.6	0.944444	0.714286	-0.08333
21 YTHRK	7.89507	-0.04	-0.25	0.333333	0.041667	-0.24	-0.21053	0	0.2	-0.33333	0.083333	-0.15385	-0.09091
22 PERSBEL	8.44488	0	0	0	0	0	0	0	0	0	0	0	0
23 INTEGREAR	8.4807	0.333333	0	0.34375	-0.27907	-0.22581	-0.16667	0.5	-0.16667	0.24	0.064516	3.649394	0
24 CYBERHOST	8.8	-0.1	0	0	-0.33333	0	0	0.333333	-0.5	0.5	-0.5	-0.33333	0
25 RARECO	9.80968	-0.04	-0.16667	0.25	0	-0.2	0	0	-0.1	-0.38889	0.181818	0.538462	-0.15
26 PENTACOM	9.82416	-0.3	-0.14286	0.166667	-0.14286	-0.83333	0	0	0	0	0	0	0
27 VENTEL	10.099	0.470588	-0.24	0.157895	0.045455	-0.08696	-0.28571	-0.26667	0.727273	-0.31579	0.153846	0	-0.2
28 GUNDEL	10.51804	0.166667	1.714286	-0.47368	-0.2	0.25	-0.17	-0.15663	-0.07143	0.369231	0	-0.14607	0.171053
29 GOODCAP	10.76236	-0.13889	0	0	0.032258	-0.125	0.071429	0	-0.06667	-0.07143	0	0.038462	0
30 FRANSAP	11.01746	-0.13043	0.1	-0.04545	3.285714	-0.02222	0.102273	0.030928	-0.01786	0.095455	-0.00415	0.1125	-0.00385
31 GUBINGS	11.1705	0.030928	-0.02	0.22449	0.0125	0	0	-0.06667	-0.01786	0.095455	-0.00415	0.1125	-0.00385
32 GLODINA	11.17872	0.264706	-0.04651	0.097561	0	-0.11111	0.25	-0.2	0.2	-0.375	0	0	-0.1
33 WINHOLD	11.21031	0	0.833333	-0.45455	-0.05556	0.470588	-0.36	-0.125	0.142857	0.0625	0.529412	-0.23077	0.145
34 CEMENCO	12.17472	0.785714	-0.08	-0.04348	-0.13636	-0.39474	0.043478	-0.16667	0.12	0.071429	0.375	0.393939	0
35 SABLE	12.2738	0.125	0	0.333333	0	-0.1	0.111111	0	0.133333	0	-0.14706	-0.03571	0.111111
36 S&JLAND	12.361	0.12069	-0.15385	-0.36364	-0.28571	0.04	0.346154	-0.2	0.071429	0	0.066667	0	0
37 WBHOLD	12.89	-0.09524	-0.05263	-0.11111	0	0	0	-0.375	-0.14	0.162791	0.2	-0.16667	-0.18
38 UNIGRO	13.07649	-0.04	-0.04167	-0.73913	0.666667	-0.4	-0.33333	0.5	0	0	0	0	0
39 SONDOR	13.2	0	0.818182	0.04	-0.1	-0.22222	0.285714	0	-0.00889	0	0.149425	-0.05	-0.10526
40 AWETHU	13.2069	-0.1	-0.22222	0	0.285714	-0.22222	-0.14286	0.5	0	-0.11111	-0.125	-0.14286	0.166667
41 BOLWEAR	14.2	0	-0.17647	0.428571	0.02	0.323529	0.040741	0.296296	0.142857	-0.005	0.020101	0	0
42 GILBOA	14.24712	0	-0.33333	0	0.5	0	-0.33333	0.5	0.333333	0.5	-0.33333	-0.5	0.5
43 OAKFLDS	14.3	-0.4	-0.5	0	-0.33333	1	-0.25	0.333333	0	0.25	-0.2	0	0
44 RLSPROPS	14.56281	0.101895	0.215385	-0.10127	0.028169	-0.0137	0.152778	0.144578	0.157895	0.181818	0.090909	0.008333	0.107438
45 COMPASS	14.96	0.029412	-0.2	-0.07143	0.069231	0.079137	0	-0.33333	0	0.05	-0.04762	0	0
46 MORIBO	15.77637	1.884615	-0.34667	0.530612	-0.26667	-0.09091	0.4	-0.28571	0.3	-0.23077	-0.3	-0.28571	-0.12
47 INMINS	15.8178	0.514286	0.603774	-0.50588	0	0	-0.09524	0.026316	0.051282	-0.02439	0.025	0.219512	-0.14
48 OMEGA	15.9675	-0.06667	-0.07143	-0.07692	-0.16667	0	0	-0.2	-0.125	-0.14286	-0.16667	0	0
49 ALLJOY	16.24	-0.03636	-0.01887	-0.13462	0	-0.02222	-0.02273	-0.02326	0	-0.04762	0	-0.025	-0.23077
50 MICROLOGX	16.5	0.230769	-0.25	-0.25	-0.22222	-0.57143	0.666667	0	0	0	-0.2	-0.25	0
51 YORKCOR	16.56	0	0	0	-0.06667	0	-0.03571	0	-0.14815	0	0	0	0
52 PASDEC	16.7892	-0.06667	0	0.571429	-0.09091	-0.375	0.76	-0.31818	0	0.6	-0.16667	0.375	0.090909
53 GOLDSTEIN	17.49125	0.078125	-0.05797	-0.01846	-0.1129	-0.34545	-0.05	0.169591	0	0.125	0	0	0
54 BUILDMAX	17.55852	0.166667	-0.21429	0.363636	0.066667	-0.0625	0	-0.46667	-0.125	0	-0.42857	1	-0.125
55 MATHOMO	18.87158	-0.09091	0.05	-0.19048	-0.05882	-0.5	0.25	0	-0.4	1	-0.16667	0.2	-0.16667
56 ITECH	18.90925	0.076923	-0.07143	0.076923	-0.32143	-0.05263	-0.77778	0.5	0.333333	0	0.125	0	-0.44444
57 SPANJAARD	19.152	0	0	0	0	0	-0.26531	-0.33333	0.833333	0.045455	-0.04348	-0.09091	0
58 SECDDATA	19.19835	-0.29412	-0.375	0.666667	0.04	-0.65385	-0.22222	0.428571	0.6	-0.0625	-0.33333	0	0
59 S&SHOLD	20.397	-0.1	-0.77778	0	0	0	0	0	0	0	0	0	0
60 LABAT	20.59218	-0.01961	2	-0.63333	-0.12727	-0.1875	-0.33333	0.076923	0.785714	-0.32	-0.14706	-0.31034	0.15
61 ELEXIR	21.18624	0	-0.30769	0	-0.33333	0	-0.5	1	0.5	0.555556	-0.14286	0.083333	0.076923
62 GROWPNT	21.69344	0.176471	-0.05	-0.05263	0	0.104556	-0.07609	0.105882	0.010638	-0.04211	-0.02198	-0.04494	0.071412
63 RPFIN	21.861	0.25	-0.3	0.285714	-0.33333	-0.16667	0.4	-0.28571	0	-0.28571	-0.2	0.25	0
64 ARIES	22.47367	0	0	0	0	0	0	0	0	0	0	0.181818	-0.11538
65 ABACUS	23.12816	-0.07143	-0.07692	-0.16667	0	-0.2	0.25	0	0	0.1	-0.27273	0.125	-0.11111
66 KAIROS	23.57376	0	-0.4	0.666667	-0.2	-0.5	0.5	0	0	0	-0.33333	0	0
67 ALEXVYT	24.10625	0.666667	-0.28	0	0.388889	-0.2	0	-0.1	-0.08333	-0.12121	-0.13793	0.12	-0.17857
68 ARCAV	24.568	0.157895	-0.13636	0	-0.10526	-0.05882	0.29375	0	0.025	-0.07317	0.105263	-0.04762	0
69 ALUDIE	24.81812	0.2	-0.33333	0	-0.45	0.363636	-0.2	0.833333	-0.27273	-0.25	0.083333	-0.07692	0.083333
70 JIGSAW	24.8808	-0.07143	0.025641	0.025	-0.07805	-0.04762	-0.22222	0.428571	-0.25	0.2	0.027778	0.02162	-0.02116
71 BATECOR	25.08922	0	0	0	0	0	0	0	0	0	0	0	0
72 SOTTA	25.2	0.75	-0.38776	0.266667	-0.47368	-0.2	-0.25	-0.16667	-0.1	-0.22222	-0.14286	0	0
73 MARSHALLS	26.058	0.025806	0.006289	0	0	0	0.066667	0	0.0875	-0.09091	0	0.326667	0.005025
74 GLOVIL	26.32	0.4	-0.07143	0	-0.30769	-0.22222	-0.14286	-0.16667	0	0.4	-0.14286	0.333333	0
75 CARGO	27	0.22549	-0.184	0	0.009804	-0.12621	0.011111	0.022727	0	-0.04444	-0.06977	0.15	-0.08152
76 AUTOQIP	27.24194	-0.16667	-0.28571	0	0.16	0.02069	-0.15541	0	0	0	0.16	-0.03448	0
77 CASEY	27.26538	0.272727	0	0	-0.92857	8	-0.11111	-0.125	-0.14286	-0.16667	-0.2	-0.25	0
78 ESSENT	27.48	0.307692	0.647059	-0.57143	0	-0.58333	-0.4	0	0	0.666667	-0.2	0.25	0
79 KING	27.48822	0.25	-0.05	-0.05263	-0.22222	0.071429	-0.06667	0	0	-0.28571	-0.2	0	0.125
80 EXPLORER	28	-0.35417	0.322581	-0.58098	-0.16667	0.266667	-0.21053	0	-0.6	0	0	-0.83333	4
81 FORIM	28.5	0.166667	-0.08571	0	-0.25	-0.25	0	-0.11111	0.25	-0.15	-0.05882	0.3125	0
82 NINIAN	28.8375	-0.01333	0.210586	0.102326	-0.02326	-0.02857	0	-0.21569	-0.1625	0.014925	0	0.014925	0.029412
83 REFCORP	30.39085	0	0	2	-0.33333	-0.5	0	-0.33333	1.5	-0.4	-0.33333	-0.5	0
84 TOCO	32.598	0.055556	-0.52632	0.222222	-0.09091	-0.1	-0.11111	-0.125	0	-0.28571	-0.2	-0.5	0
85 EUREKA	33.36	0.1	0.036364	0.052632	0	0	0	0	0	0.0125	-0.00412	0.008264	0.016393
86 DECTRONIC	34.2	-0.2963	-0.21053	-0.13333	-0.07692	0.166667	-0.21429	-0.09091	0.2	-0.25	0.444444	-0.23077	

99 GEN-OPTIC	42.1302	0	0	-0.03896	0.054054	0	0.038462	-0.00247	-0.05941	0.1	-0.05	0	0.039474
100 EXCELL	42.80945	0.193548	1.351351	-0.1954	-0.07143	0.015385	0.090909	-0.09722	-0.01538	0.25	-0.125	0.042857	-0.08219
101 PROSPUR	43.2	-0.08163	0	-0.16667	0.333333	0	0	0	-0.05	-0.01053	0	0	0
102 NATCHIX	43.8908	-0.05882	-0.1125	0.021127	-0.17241	-0.08333	0.045455	-0.04348	0.136364	0.104	-0.02174	0.333333	-0.19444
103 STRAND	45.00664	0.014286	0.166231	-0.07895	-0.21429	-0.03636	0.056604	-0.10714	0.02	-0.11765	0.222222	-0.10909	0.244898
104 SOVFOOD	45.7296	-0.14583	-0.39024	0.02	0.058824	-0.07407	-0.2	0.5	-0.08333	0.454545	-0.0625	-0.25333	0.428571
105 ALACRITY	46.02294	-0.2	-0.03125	0	-0.16129	0.115385	-0.2069	0.086957	0.52	-0.10526	0.382353	-0.21277	-0.16216
106 CHET	46.6945	0	-0.07407	0.04	0.078923	-0.10714	0.04	-0.07692	0	-0.125	-0.2381	-0.1875	-0.07692
107 STEERS	48.42884	-0.08649	-0.12426	0.081081	-0.125	0.071429	0.013333	-0.06897	0.096296	0.013514	-0.233333	0	0
108 WESCAP	49.05881	-0.03704	0.153846	-0.23333	0.014493	0	0.071429	-0.08	0.115942	0.038961	-0.025	-0.10256	-0.14286
109 PREMIUM	49.8125	0.1	0.064935	0.365854	0.043304	0.047619	0.018182	-0.00893	0.171171	-0.03077	0.150794	-0.01724	0.007692
110 INTRADING	50	0.029412	-0.02857	-0.05882	0	-0.5	-0.3625	0.2	-0.12963	-0.04255	0	-0.33333	0
111 ZELTIS	50.2556	0.761905	-0.54054	-0.23529	0	-0.30789	0.333333	-0.08333	-0.09091	-0.1	-0.22222	-0.14286	-0.16667
112 TEREXKO	52.96176	-0.16667	-0.44	-0.21429	-0.06061	0.290323	-0.5	0.4	0.25	0.342857	-0.21277	0.121622	-0.05882
113 CAPSTAR	53.13568	0.067961	0.44	0.027778	-0.02703	0.111111	0.075	-0.10233	0.138986	0.045455	0.008696	0.012931	0
114 ZAPTRONIX	53.57888	0	-0.32143	-0.26316	0	0	0.178571	0	-0.06061	-0.16129	-0.23077	-0.05	-0.15789
115 DON	55.95215	0.125	-0.22222	-0.14286	0	-0.16667	0	0	-0.4	0.333333	0.25	0	0
116 ELSEC	56.85331	-0.18571	0.491228	-0.11765	-0.16	-0.03175	0	-0.34426	0.5	-0.5	0.833333	0.054545	-0.31034
117 CULLINAN	58.77104	-0.14286	-0.16667	0.4	-0.14286	-0.16667	0	0	0	0	0	0	0
118 MOULDMED	58.88	-0.16667	-0.2	0	0.75	0.857143	-0.46154	0.142857	-0.125	0	-0.28571	0.6	-0.375
119 PUTPROP	59.60151	-0.02941	-0.07273	-0.05229	0.041379	-0.03448	-0.01786	0.054545	-0.06897	0.111111	0.046967	0	-0.01379
120 INDEQTY	61.218	-0.01961	0	0	0	-0.03	0	0	-0.03093	0	-0.30851	-0.10769	0
121 OSI	61.56	0.3	-0.07692	-0.1	-0.35185	-0.14286	0.133333	0.470588	-0.14	-0.30233	-0.333333	-0.1	0
122 NEIHOLO	62.46458	-0.09091	-0.9975	0	0	0	0	0	0	0	0	0	0
123 CHESTER	62.65116	-0.04545	-0.04762	0	0.05	-0.04762	0.025	0.02439	-0.07143	0.153846	0.088889	0	0.040816
124 HOWDEN	64.85715	0.190476	-0.12	-0.04545	-0.02857	0.009804	-0.04255	0.044444	0.106383	-0.10577	-0.04301	-0.10714	0.2
125 PUTCO	65.0055	0.15	-0.01449	-0.08824	0.032258	-0.26667	-0.09091	0	-0.025	0.025641	0.09	-0.09091	0
126 AF-&OVER	65.58912	0	0	0.013333	-0.04805	0	0	0	0	-0.35724	0	0.062232	-0.26824
127 IPROP	66.31371	0.118182	0.065041	-0.1126	-0.10753	-0.06024	-0.10256	-0.14286	0.066667	-0.07813	0.169492	0.086957	0.026667
128 CONFED	69.30154	0	0	0	0.026667	0	0	0	0	0	0.00679	0	0
129 CORE	69.43	-0.08	-0.07609	-0.05882	0.0625	0.035294	-0.09091	-0.375	-0.22	-0.35897	-0.24	-0.47368	0.1
130 ALEXNDR	69.9885	-0.03158	0	0	0	0	0	0	0	0	0	0	0
131 BRIMSTON	70.42608	0.153846	0.083333	-0.07692	-0.08333	0.090909	0	0	0.15	0.014493	-0.07143	-0.15385	0
132 CONTROL	70.7888	0.575	-0.07937	0.318966	-0.13793	-0.12	-0.16364	0.358696	-0.064	-0.07692	-0.0463	0.058252	-0.00917
133 TRNPACO	71.9642	-0.16327	-0.12195	0.011111	-0.03955	-0.34706	0.198198	-0.01504	0.221374	-0.1875	0.28	-0.15625	0.051852
134 NIMBUS	72	0	0	0	0	0	0	0	0	0	0	0	0
135 BOWCALF	73.8327	0.052632	0.12	-0.03616	-0.05714	-0.20202	0.037975	0.195122	0.115306	0.186916	-0.09449	0.043478	-0.025
136 VESTCOR	75.74832	-0.17969	-0.09524	-0.17895	-0.12821	-0.11765	0	0.033333	-0.01613	0.016393	0	0.032258	0.171875
137 CASHBIL	76.41025	0.09434	0.344828	0.051282	-0.02439	-0.025	-0.10256	-0.2	-0.14286	-0.16667	-0.21429	-0.09091	0
138 MDMGROW	76.44357	-0.02222	-0.15909	-0.02703	0.166667	-0.11429	-0.13978	-0.125	0	0	-0.17857	0.130435	0
139 ACUITY	76.49452	-0.05556	-0.62353	0.5625	-0.2	-0.55	0.388889	-0.08	-0.21739	0.555556	0.035714	-0.44828	-0.375
140 FUSION	77.21109	0.25	0.1	-0.04545	-0.26471	-0.28	0.018519	0.090909	-0.16667	-0.28	-0.30556	0.96	0.020408
141 LASER	77.807	-0.04225	-0.22059	0	-0.03774	0	-0.23529	-0.10256	0.131429	-0.06566	-0.04324	0.011299	0.005587
142 YABENG	78.19168	-0.09639	0.013333	-0.06579	-0.02817	-0.10145	0.129032	0.071429	0.24	-0.03226	-0.06667	-0.04762	0.375
143 WINECORP	79.33954	0.409091	-0.41935	0.111111	0	-0.4	0.25	-0.333333	0.5	0	0	0	-0.13333
144 CROOKES	79.56	0.323529	0	-0.03333	0.04386	-0.10924	0.141509	0.104425	-0.00641	0	-0.06452	-0.05172	0.130909
145 CAPEMP	80.75	0	-0.05556	0	-0.11765	-0.53333	0.142857	0	-0.375	1	-0.3	-0.42857	0.75
146 BRANDCO	81.76837	0.125	-0.07407	0	-0.04	0.020833	-0.02041	-0.02083	0.148936	0.388889	-0.14286	0.166667	0.098361
147 TILEAFRIKA	85.2	0.056338	-0.06667	-0.01786	-0.05455	-0.26923	-0.05263	0.083333	0.020513	0.308533	-0.15385	0.045455	0.304348
148 BEARMAN	90.85126	0.0625	0.082353	-0.11667	-0.06918	-0.20946	0.282051	0.006667	0.099338	-0.04819	0.019737	0.032258	0.03125
149 SPURHLD	90.99194	0	0	0	0	0	0	0	0	0	0	0	0
150 PRIMA	93.17728	-0.01429	0.018841	0.015385	-0.01515	0.076923	-0.01429	-0.01449	0.147059	-0.03846	0.043478	0.111111	0.1125
151 COATES	94.4832	-0.12727	0.041667	0	0.208	0.059603	0.459375	0.040685	0.04	0.025641	0.025	0.219512	0.06
152 SASANI	94.716	-0.06897	-0.11111	-0.16667	0.02	-0.01961	-0.2	-0.0625	0.04	0.025641	0.025	0.219512	0.06
153 INFOWAVE	96.83	-0.15	-0.17647	-0.14286	-0.16667	0.4	0.071429	-0.06667	-0.14286	-0.16667	0.3	-0.38462	1.125
154 MMG	98.81	0.931183	0.030067	-0.1373	-0.24185	-0.24793	0.261538	-0.10279	-0.11262	-0.05908	0.093023	-0.2766	0.308824
155 RETCORP	100.82392	0.008511	0	0	0	0	0	0	0	0	0	0	0
156 OXBRIDGE	101.40608	0.204082	-0.15254	-0.1	-0.15556	-0.28947	-0.2963	-0.68421	-0.5	0	0.333333	-0.5	-0.5
157 SABVEST	102.56288	0.06383	-0.04	-0.00833	-0.34783	-0.06667	0.035714	-0.13793	0.12	0.071429	-0.06667	-0.17857	0
158 METPROL	104.6455	0.137778	0.054688	-0.07407	-0.016	-0.07829	0.045455	-0.0087	0.074561	0.051102	0.020833	-0.05306	0.086207
159 NEI-AFR	105.52755	0.031847	0.154321	-0.04385	-0.08127	-0.1923	-0.05583	-0.06087	-0.06481	0.089109	-0.09455	0.405622	-0.07143
160 CMH	105.59948	-0.1125	0.028169	0.027397	-0.05333	0.027465	0.173913	-0.01235	0.09375	-0.02857	0.058824	-0.07156	0.019394
161 ENSERVE	106.72116	-0.18182	-0.43333	0.294118	-0.04545	-0.04762	0.1	0.212121	0.0625	0.141716	0.511111	0.029412	-0.08571
162 SAMRAND	108.9304	-0.35556	-0.13793	-0.6	-0.2	1.25	0	-0.22222	-0.5	0	0.285714	0.111111	0
163 BOUMAT	109.84356	0.586207	-0.17391	-0.12105	0.197605	0	0	0	0	0	0	0	0
164 SEKUNJALO	109.97436	0.0875	-0.1954	0.428571	-0.08	-0.29348	-0.23077	-0.04	0.041667	-0.42	-0.17241	0.041667	0.12
165 SEARDEL	111.41936	-0.13714	0.125828	-0.14706	0.075862	0.012821	0.044304	-0.0303	0.03125	-0.06061	-0.03226	0.106667	0.65625
166 BATEPRO	112.74704	0.140625	0.041096	-0.14737	0.269841	0	-0.175	0.090909	-0.16667	-0.1	0.1	0.083916	0.032258
167 VALUE	114.17945	0.014493	0.228571	-0.01163	-0.07059	-0.31646	0.166667	-0.28571	-0.11111	-0.1	0.111111	-0.125	0.085714
168 ALIANCE	114.21522	0.428571	-0.25	0.266667	-0.23684	-0.31034	0.25	-0.13636	0.315789	0.08	0	0.258259	-0.02941
169 ONELOGIX	115.80288	-0.13131	0.116279	0.041667	-0.05	-0.26316	0.142857	-0.3125	0.636364	-0.02222	-0.26136	-0.15385	0.090909
170 RECTRON	116.4	0.133333	0.176471	-0.1	0	-0.16667	0.093333	-0.21951	0.03125	0.060606	0.214286	-0.11765	-0.13333
171 REX-TRUE	116.42088	-0.05479	-0.07246	0.015625	-0.03846	0	-0.0016	-0.07051	-0.22414	-0.11111	0	-0.0375	-0.22222
172 AUTOPGE	116.784	0.189655	-0.01449	-0.04412	-0.01846	0.285266	-0.02439	0.0175	0	-0.11111	-0.075	-0.10811	0.13333
173 VESTA	120.00616	-0.06667	0.071429	0.388889	0.072	-0.16045	0	-0.11111	-0.075	-0.10811	-0.13333	-0.16084	0.083333
174 DIGICOR	120.4	-0.30769	-0.37778	0.464286	-0.31707	-0.17857	0.043478	-0.125	0.095238	0.217391	0.035714	0	-0.10345
175 NANDOS	121.42557	-0.08889	-0.09756	0.243243	-0.23913	0	-0.17143	0.103448	-0.15625	0.037037	-0.25	0.285714	-0.11111
176 ELBGROUP	122.2572	0.071429	0.026667	-0.26104	0.017857	0.003509	-0.09091	-0.03846	0	-0.02	0.257143	-0.04167	0.06087
177 PLASGRP	123.29831	-0.02632	-0.37838	-0									

198 APEX	167.11754	-0.0303	0.03125	0	0.090909	-0.075	0	0.035714	0.103448	-0.03125	0.129032	0.030857	0
199 FORTUNE	169.44135	-0.0051	-0.02564	0.047368	0.036269	-0.125	-0.14286	-0.06667	-0.14286	0.016667	-0.01639	-0.08333	0
200 GRINDROD	169.97324	0.193548	-0.18919	-0.06667	0.142857	0.03125	0.10303	-0.00549	0.243094	0.133333	-0.08	0.152174	0.150943
201 HARWILL	170.848	-0.2	0	0	0	-0.15625	-0.03704	-0.07692	-0.50833	-0.66102	0	0	0
202 SMACSOFT	171.68	0.4	-0.22078	-0.175	-0.39394	-0.36667	0.131579	-0.30233	0.333333	-0.225	0.387097	0.418605	0.081967
203 AQUILA	171.95472	0	-0.14783	0.091837	0.074766	-0.06087	0.398148	-0.39655	0.028571	0.083333	-0.01282	-0.03896	0
204 TOP-TECH	172.90062	-0.1497	-0.16197	0.554622	0.081081	-0.15	-0.03529	0.02439	0.011905	0	-0.02353	-0.01807	-0.07362
205 KH-PROPS	174.25875	0.019608	0.009615	-0.00952	-0.00962	0	-0.02913	0.02	0.068627	-0.01835	0.085421	0.087719	0.032702
206 KTL	175.44398	0.283784	0.150877	-0.12104	-0.22942	-0.14773	0.026667	0.142857	0.181818	-0.12115	-0.1236	0	-0.02564
207 FURNCAP	178.2558	0	0.043478	0.041667	-0.008	-0.08065	-0.29825	0.025	0.219512	-0.15	-0.29412	-0.13333	0.346154
208 OZZ	178.26056	-0.01923	0.019608	0.023077	-0.11654	-0.02128	0.034783	-0.03613	-0.12465	0.115834	-0.14286	0	0.042222
209 MAXTEC	183.41643	-0.20714	0.18018	-0.1145	-0.09483	-0.18095	0.05814	-0.26374	0.044776	0.142857	-0.1	-0.375	0.066667
210 ROADCOR	185.3282	0.5	-0.62667	-0.75	0.714286	-0.16667	-0.4	0.166667	-0.28571	0	0	0	0
211 CSHOLDING	187.29151	-0.05	-0.15789	0.25	0.1	-0.16667	0	-0.1	0.262626	-0.08	-0.04348	-0.07273	0.078431
212 AFBRAND	187.34898	-0.27907	-0.35484	-0.2	0	-0.375	-0.1	0.333333	-0.16667	-0.3	0	0	-0.14286
213 AME	187.894	0	-0.17647	-0.21429	-0.36364	0.142857	-0.25	-0.33333	0.5	0	0.333333	-0.25	-0.33333
214 IDION	191.42493	0.174194	-0.06593	-0.15294	-0.35069	-0.03743	0.244444	0.0625	-0.10084	0.196262	-0.28359	-0.15485	0
215 TELTRON	191.8688	0	0	0	-0.941118	0	0	0	0	0	0	0	0
216 BUSBY	191.97386	0.37037	0.013514	-0.04	-0.1111	-0.32813	-0.02326	-0.20476	0.526946	-0.14314	-0.09524	-0.13158	-0.09091
217 ASTRAPAK	192.4269	0.392045	-0.01224	-0.29752	-0.11765	0.091333	0.113333	0.167665	-0.12821	0.029412	-0.11429	0.032258	0
218 KOLOSUS	196.14	-0.31579	-0.23077	0	-0.2	0.375	0.590909	-0.22857	-0.22222	-0.04762	-0.15	-0.05882	0.0625
219 CBD-FUND	196.64218	-0.04762	0.09375	0	-0.02857	0.139353	0.028571	0.005556	-0.00552	-0.02778	0.142857	-0.0468	0.085227
220 ATLAS	199.95744	-0.05235	0.009524	-0.00943	-0.04762	0	0.08728	-0.03922	0.030612	0	0.029703	0.067308	0.125261
221 NETACT	200.2144	-0.16667	-0.2	-0.125	0.114286	-0.23077	-0.16667	0.08	0.111111	0.1	-0.21212	0	0.038462
222 MIDAS	205.92495	-0.12037	0	-0.05263	0	0	-0.03556	0	0.023529	0	0	-0.08046	0.04
223 UNIHOLD	213.5115	0.060606	0.060714	-0.15825	0	-0.16	-0.11905	-0.0973	0.221557	-0.08824	-0.02688	-0.11602	-0.0625
224 GRINAKER	213.78	0	0	0	0	0	0	0	0	0	0	0	0
225 PIONEER	214.31451	0.126374	-0.01951	0.069652	-0.06977	0.0407	0	0	0.147368	0.009174	0.009091	0.045721	-0.02326
226 ADVANCED	216.35667	0.085714	-0.23246	-0.05714	-0.24242	-0.992	0	0	0	0	0	0	0
227 GLOPVT	216.806	0	0	0	0	0	0	0	0	0	0	0	0
228 BASREAD	218.196	0	0	-0.2027	-0.0339	-0.26316	-0.1381	-0.16022	0.125	-0.42105	-0.24242	0	-0.29333
229 SASFIN	229.53392	0.019388	-0.11411	-0.26554	0.069231	-0.30935	0.041667	0.04	0.423077	0.032432	0.027104	-0.03472	0.035971
230 AMAPROP	231.05994	0.157895	0.009091	0.043243	-0.05455	-0.03846	0.05	-0.0381	0.019802	0.841359	-0.00935	0.183019	0.007974
231 WHETSTN	231.66864	-0.14286	0.166667	-0.42857	0	0	0	-0.25	2	0	-0.33333	0	0.5
232 METKOR	233.73896	0.044226	0.089412	0.079914	0	0	0	0	0	0	0	0	0
233 RICHWAY	235.0872	0.217949	0	-0.09895	0.075	-0.05814	0	0	0.049383	0.066471	0	-0.02353	0.084337
234 MCCARTHY	235.29156	0.269388	-0.03537	-0.08333	-0.18909	-0.19283	0.111111	-0.26	0.114865	-0.12121	-0.2	-0.09483	0
235 CITYLDG	244.00462	-0.07527	-0.05756	-0.06329	0.047797	-0.07097	0.041667	-0.02667	0.164384	-0.01706	-0.125	0.028571	0.111111
236 NUWORLD	245.2605	-0.11765	0.066667	-0.0625	-0.07	-0.08602	0.137255	-0.13103	0.079365	-0.01103	-0.01487	-0.16981	-0.04764
237 WETHLYS	247.54212	0.032787	0.015873	-0.0625	-0.2	0.070833	-0.06746	-0.02979	0.052632	0.083333	-0.03846	-0.08	0.086957
238 HUDACO	248.49368	0.173684	0.022422	-0.00922	-0.02326	-0.04762	-0.095	-0.00663	-0.01136	-0.02299	-0.08235	-0.10256	0.007143
239 GLOTEC	253.50976	0	-0.19355	-0.04	-0.2	-0.0625	-0.16667	0.133333	0.011765	0.034884	-0.04494	-0.01176	0.011905
240 SPORT	257.3632	-0.55556	-0.39286	0.147059	-0.30769	0.518519	0.219512	0.3	0.030769	0.059701	-0.98592	0	0.375
241 EQUINOX	257.862	0.3	-0.28205	-0.03571	-0.11111	-0.16667	0.05	-0.04762	-0.1	-0.4	-0.25926	0	0
242 MTROPLS	261.01746	0.21875	-0.25128	-0.28082	0.085714	0.008772	-0.04348	-0.4	0	-0.68182	0.190476	0.2	-0.16667
243 UAM	261.92023	0.041667	-0.208	-0.69697	0.566667	-0.2766	-0.20588	0.481481	0.025	0.268293	0.057692	-0.23636	-0.21429
244 BRIDGESTN	270.522	-0.11111	-0.15625	-0.03185	0.007752	-0.03846	0.24	0	0.064516	-0.24375	-0.04959	0.173913	-0.14815
245 LENCO	274.47006	-0.06757	-0.08696	-0.04762	-0.15	-0.01961	-0.08	0.021739	-0.19149	0.052632	-0.22	-0.03846	0.133333
246 SAIL	274.84932	0	-0.06667	0.035714	0.034483	-0.06667	-0.03571	-0.11111	0.075	0.193798	0.038961	-0.0625	-0.13333
247 ITITECH	284.8113	-0.14655	-0.14141	-0.38235	-0.35238	-0.23529	-0.86538	0	0	0	0	0	0
248 KGMEDIA	289.86084	0.160714	-0.18462	-0.01887	-0.01923	-0.15686	0.098767	0	0	0.195652	-0.08727	0.200398	0
249 CORNICK	290.39034	0	0	0	0	0	0	0	0	0	0	0	0
250 CFC	293.8304	0.174603	0.008108	-0.06166	0.019429	-0.13571	0.024793	0	0.032258	-0.0625	0.036333	-0.04383	0.052632
251 RAG	294	-0.14815	-0.38261	-0.04225	-0.11765	-0.16667	-0.0566	-0.16	-0.16667	-0.28571	-0.44	0	-0.42857
252 FRAME	294.9993	-0.03571	-0.02222	0.071212	0.285714	0.007778	0.030871	0.018043	0.115789	-0.0283	0.092233	0	0
253 VOLTEX	298.93667	0.074627	0.027778	-0.11081	-0.13043	-0.07143	-0.05769	0.102041	0.092593	-0.12203	-0.00407	0.040816	0.019608
254 PANPROP	305.40191	0.081818	0.042017	-0.01452	-0.01579	-0.0107	0.081081	0.038333	0.061404	-0.01322	0.080402	0.023256	0.022727
255 DCENTRIX	311.9991	-0.16857	-0.31271	0.025	-0.29268	-0.24828	-0.08257	0.09	-0.06422	-0.11765	0.111111	-0.07	0.139785
256 QUYN	314.19448	0.5	-0.15897	-0.28049	-0.29661	-0.03614	-0.075	-0.24324	-0.05357	-0.24528	-0.125	-0.14286	-0.13333
257 SERVEST	319.0956	-0.02174	-0.02222	-0.09091	-0.225	-0.29032	0.109091	-0.18033	-0.1	0.022222	0.088957	0.07	-0.06542
258 CRUX	319.644	-0.23077	0	-0.2	-0.25	-0.4	-0.05556	-0.29412	0	1	0.166667	-0.21429	0.136364
259 ECHOLD	321.36	0.039474	-0.20253	-0.34921	-0.02439	-0.45	0.045455	-0.13043	-0.1	0.077778	0.195876	0	-0.06897
260 LA-GROUP	324.89349	-0.104	-0.10714	-0.052	-0.12658	-0.54108	-0.1	0.052632	0.161111	-0.30622	-0.09655	-0.0458	-0.2
261 JASCO	325.748	-0.07895	-0.22857	-0.03704	-0.09231	-0.32203	-0.1375	-0.04348	0.363636	-0.21111	-0.43662	0.1	-0.02273
262 IST	331.9947	-0.0678	-0.32727	-0.05405	0	0.371429	-0.22917	0.027027	0.052632	0.075	-0.03292	-0.11905	0.027027
263 WESCO	334.65166	0.012658	0.0225	-0.04645	-0.15897	0	-0.03226	0.166667	0.171429	-0.02195	0.034913	0.012048	0
264 BELL	334.76032	0.022222	0.086957	0.152	-0.01754	0.151786	0.139535	0.176871	0.132948	-0.01531	-0.17098	-0.15625	0.140741
265 ACCORD	334.77457	0.077519	-0.02158	-0.13235	-0.16102	-0.16162	-0.27711	-0.25	-0.48889	-0.17391	-0.31579	-0.23077	0.4
266 CAPITAL	337.7297	0.0625	-0.03302	0	-0.08696	0.042857	-0.03196	0.037736	0.061409	0.036866	0.111111	0.02	-0.05882
267 OMNIA	337.9828	0.128049	-0.04865	-0.14773	-0.13733	-0.04	0.05	-0.03175	0.032787	-0.03175	-0.08197	-0.09821	-0.08911
268 VIKING	338	-0.02941	0.060606	-0.05714	-0.09091	-0.03333	-0.31034	0.15	-0.17391	-0.03158	0.005435	-0.00541	-0.18478
269 HYPROP	339.93456	-0.03081	0.027815	0.005155	0.042295	0.033113	0.025841	-0.01875	0.101911	0.075145	0.084475	0.005263	0.041885
270 SETHOLD	341.253	-0.21429	-0.52727	-0.03846	0.36	-0.41176	-0.125	-0.2	0.142857	-0.0625	-0.33333	0	0.3
271 RELYANT	343.93767	0.066667	0.020833	-0.03061	-0.15789	-0.15	-0.25441	-0.01381	-0.04	-0.125	-0.08333	-0.28052	-0.13357
272 PRIVEST	352.325	0.125	-0.11111	-0.325	-0.13333	-0.35897	-0.13333	-0.53846	0.2	-0.16667	-0.43333	0.411765	0.458333
273 RENTSUR	356.66316	-0.2434	-0.07232	-0.03226	-0.17083	-0.49153	0.8	-0.25926	-0.1	0.055556	-0.17105	-0.20779	0.229508
274 TERFIN	359.8608	-0.03247	-0.51678	-0.72222	0	0.05	0.285714	-0.33333	-0.11111	-0.625	3.666667	-0.53	

297	SEAHARV	462.8993	0.059829	0	0	-0.02419	0	-0.00413	0.033898	0.139344	0.01295	-0.00568						
298	MOBILE	466.88772	0.046512	-0.26667	-0.27273	-0.25	0.166667	0.52381	-0.21875	0.32	-0.0303	0.0625	-0.02941	-0.06061				
299	SPESCOM	476.06191	0.087179	-0.20283	-0.1716	-0.3	-0.09592	-0.27765	-0.04063	0.140065	-0.12857	-0.11475	-0.18519	0.172727				
300	RAINBOW	486.62534	0.22619	-0.2233	0.1375	-0.08791	0.084337	0.011111	0.483516	0.068667	0.111111	-0.0125	-0.05063	0.1				
301	PARADIGM	488.2248	0.71875	-0.29091	-0.41026	1.130435	0.47959	-0.2549	0	0.026316	0.051282	-0.09756	-0.05405	-0.14286				
302	VENTRON	488.52325	0.135802	-0.07809	0.011765	0	0.04186	-0.10714	0.0575	0.182033								
303	PARTNER	489.8	0	0.404959	0.029412	0.085714	-0.00526	-0.01058										
304	DECILLION	492.94996	0.3125	0.011905	-0.05882	-0.075	-0.2027	0.010169	-0.04362	-0.01754	-0.14643	-0.12134	0.047619	0				
305	SENTRY	500.40343	0.1	-0.06818	0.073171	-0.13636	-0.15789	0	-0.21875	0.56	-0.04359	-0.11111	0.25	0.02				
306	MBTECH	508.1778	0.3	0.442308	-0.32667	-0.12871	-0.19318	0.338028	-0.28632	0.076696	-0.30137	-0.37255	-0.1875	-0.23077				
307	INTRUST	508.97352	0.666667	-0.1	-0.22222	1.285714	-0.0625	0	0	0	0	0	0	0				
308	I-&J	514.56018	0.004167	0	0	0	0	0	0	0	0	0	0	0				
309	PREM-GRP	518.818	0	0	0	-0.98571	0	0	0	0	0	0	0	0				
310	MONEX	522.3195	-0.11765	-0.39667	-0.03315	-0.08571	-0.1875	-0.06923	-0.21488	0.263158	-0.16667	0	-0.05	0				
311	SILTEK	526.40068	0.186992	-0.0137	-0.15278	-0.01639	-0.11667	-0.01887	-0.14423	0.179775	-0.29524	-0.11111	-0.59375	-0.15385				
312	APLITEK	532.1237	-0.20415	-0.15217	0.153846	-0.15556	-0.13158	0.363636	0.142222	0.330739	-0.09357	-0.03226	-0.18333	0.040816				
313	DELHOLD	539.51629	0.086957	0	0	-0.0069	0.019444	0	0.041667	-0.17333	-0.03226	-0.16667	0	0.05				
314	GLENMIB	546.54678	0.086957	0.02	-0.10588	0	-0.09091	0.2289	-0.16239	0.204082	-0.02542	0.022727	-0.11556	0.035176				
315	FARITEC	579.621	0.280702	-0.41096	0.139535	-0.18367	-0.215	-0.33758	-0.61538	0.075	-0.18605	-0.42857	-0.15	0.176471				
316	DORBYL	579.8097	0.021778	0.114754	-0.27647	0.01628	0.14	0.045814	-0.06552	0.070111	-0.03448	-0.07143	-0.13462	0.008889				
317	ALTRON	587.76417	0.126868	-0.07947	0.107914	-0.18052	-0.08399	-0.05455	0.180769	0.091205	-0.04627	0.064163	-0.02941	-0.01515				
318	CLINICS	634.94728	-0.16	0.066667	0.071429	-0.08333	0.090909	0.208333	-0.10714	0.104	-0.05797	-0.15385	0.454545	0.03125				
319	SYCOM	635.28798	0.047619	0.007576	0.003489	-0.01613	-0.01639	0.033333	0.080645	0.097015	0.03532	0.022409	0.006849	0.054422				
320	UCS	648.411	0.079365	-0.19118	-0.14545	-0.15319	-0.29648	0.257143	0.022727	0.055556	-0.28947	-0.33333	0	-0.14444				
321	CORPCOM	658.78326	0.0625	0	-0.11765	-0.16	-0.20635	-0.3	-0.14286	0.16667	-0.01639	0	-0.25	0				
322	AEALHTH	693.48096	0.0199	0.02439	0	0.011905	0	0.022588	0.023529	0.137931	-0.06869	0.075922	0.058468	-0.0059				
323	COMAIR	709.8	0.204545	0	-0.03774	-0.31373	0.371429	0.083333	-0.09615	0.025532	-0.18257	-0.18421	-0.03226	0.233333				
324	TELJOY	709.92	0.031944	0	0	0	0	0	0	0	0	0	0	0				
325	REGAL	715.7345	0.140741	-0.09091	-0.01429	-0.11594	-0.42787	0.269341	-0.05814	-0.12346	0.056338	0.013333	0.013158	0.12987				
326	LESERNET	730.08906	-0.08951	-0.22034	0.252174	-0.14931	-0.08163	-0.26222	-0.08434	-0.06579	-0.58451	-0.66102	0	0				
327	UNISERV	738.50799	0.253846	-0.04908	-0.03226	0	0.133333	0.023529	0.072126	0.243243	-0.01957	0.059867	-0.1841	0.076923				
328	TOYOTA	744.63108	0.123077	-0.05023	-0.07933	0.018767	0.052632	0	0.05	0.142857	0	-0.02083	0.002128	0.019108				
329	HLH	751.92546	0.19685	-0.03289	-0.03401	0.014085	0.009944	0.067862	-0.07532	0.102528	-0.1465	-0.07463	0.008065	-0.0352				
330	FINTECH	760.2125	-0.10145	-0.04839	0.033898	-0.09836	-0.19638	0.048193	0.036782	0.064302	-0.17708	0.037975	0.365854	-0.07143				
331	DELICORP	780.26283	0	-0.01	0.05051	0.06383	-0.112	0.139535	-0.06122	-0.03261	0.011236	-0.05111	-0.08665	0.282051				
332	BJM	808.27425	0.066667	-0.11667	-0.01887	-0.13462	-0.12222	-0.34177	-0.01923	-0.07071	-0.06522	-0.17442	-0.1831	0.07931				
333	MACMED	822.34724	0	0	0	0	0	0	0	0	0	0	0	0				
334	CHEMSERVE	824.16816	-0.02542	0.021739	-0.06009	0.041475	-0.02655	0.090909	0.016667	0.118852	0.003704	-0.07749	-0.16	0.047619				
335	HEDGE	827.09792	0.013953	0	0	0	0	0	0	0	0	0	0	0				
336	CADIZ	829.7426	0.095238	-0.16122	-0.11842	-0.1791	-0.23636	0.095238	-0.03478	-0.25225	-0.12651	-0.13793	0.12	-0.07143				
337	ADDCORP	842.76438	0.125	-0.02222	-0.04053	-0.12351	-0.13638	-0.03947	-0.08493	0.125749	-0.01064	-0.20968	-0.18367	0.291667				
338	NETCARE	844.59776	-0.04444	0.162791	0.04	-0.13462	0	-0.05	0.048193	0.011494	0.034091	-0.12088	0.2125	0.010309				
339	MRCANTIL	851.51674	-0.03226	-0.07778	-0.04819	-0.05063	-0.33333	0.361	-0.07273	-0.07843	-0.12766	-0.19512	-0.09091	0.45				
340	SPICER	865.6362	-0.23077	-0.06625	-0.45161	-0.17647	-0.57143	0.333333	0.25	0.2	0	-0.16667	-0.2	0.125				
341	THEBEFIN	875.97664	0	0	0	0	0	0	0	0	0	0	0	0				
342	MEDCLIN	888.9861	0.048367	0.064103	-0.10843	-0.06757	0.057971	0.117945	0.101266	0.089866	0.053763	-0.08163	0.133333	0.032353				
343	M-NETSS	905.568	0.12069	0.062308	0.035211	-0.22449	-0.01754	-0.00893	0.054054	0.025641	-0.05833	-0.06195	-0.0566	-0.038				
344	OUTSORS	918.9024	0.453659	-0.2802	-0.20047	0.04902	-0.07788	0.198324	-0.39718	-0.02804	-0.13462	-0.21778	-0.58097	-0.0339				
345	UNITRAN	924.02344	0.270718	0.008696	-0.04159	-0.09091	-0.005	0.155779	0.023913	0.061571	-0.0608	-0.04348	0	-0.05455				
346	CORPCAP	937.15672	0.282051	-0.01333	0.013514	-0.06667	-0.25	-0.14286	-0.21111	0.014085	0.152778	-0.09639	-0.06933	0.164179				
347	MUSTEK	945.6804	0.057692	-0.14286	-0.24242	-0.02	-0.14286	-0.28571	-0.18333	0	-0.02857	-0.34874	-0.22581	0.066667				
348	PSG	951.58665	0.068376	-0.2	-0.139	0.074332	-0.12432	0.048148	-0.24242	0.024	-0.08594	-0.05128	0.075063	0.123499				
349	GENBEL	952.22	-0.00204	-0.03067	-0.08228	-0.11494	-0.13247	0.107784	-0.05946	0.103448	-0.07568	-0.00292	-0.10264	0.088235				
350	OTK	958.63257	0.111429	0.002571	0.025641	-0.0125	0.04557	0.061728	-0.04651	0.063415	0.03211	-0.03333	0.093793	0.11828				
351	PSGNOBLE	969.9	-0.16667	-0.2	0	0	0	0	0	0	0	0	0	0				
352	MOLOPE	1009.4524	-0.09	0.021978	-0.08602	-0.02353	-0.01205	-0.14634	-0.01429	0	0	0	0	0				
353	GRAYPROP	1012.12024	-0.03608	0.032086	-0.02073	-0.00529	0.005319	0.028571	0.05	0.068783	0.024752	0.062802	0.072273	0.078923				
354	DISTELL	1012.2	0	-0.02632	0.007568	-0.06593	0.064706	-0.03867	0.05977	0.030369	-0.00526	-0.06111	-0.06509	-0.11392				
355	MARTPROP	1013.09411	-0.05263	-0.02778	0.028571	-0.08333	-0.08061	0.032258	0.09375	-0.01143	0.023121	0.011299	0.005587	-0.03889				
356	POWTECH	1050.82178	0.023913	-0.09766	-0.04706	-0.08642	-0.18919	0.05	0.116667	-0.04478	-0.01563	0.047619	-0.02727	0.152648				
357	METTLE	1057.49125	-0.17391	-0.07895	0.085714	-0.21053	-0.13333	-0.15385	0.045455	-0.30435	0.1125	-0.05618	0.071429	-0.03333				
358	M&R-HLD	1079.52	0.099138	-0.17647	-0.22619	0.076923	-0.17143	0.137931	-0.12121	0.148276	0.096096	-0.15068	0	0.032258				
359	MR PRICE	1081.70524	0.064286	-0.04027	-0.04336	-0.22515	0.188679	0.079365	-0.11765	0.025	0.02439	-0.04762	-0.45833	0.132308				
360	SHAWCELL	1095	-0.0202	-0.21649	-0.23684	-0.17241	-0.0625	0.333333	0	-0.08333	0.090909	-0.11667	-0.11887	0.615385				
361	TEMPORA	1158.9354	-0.0591	0.008264	0.081967	-0.04545	-0.12698	0.181818	0	0.032615	-0.05199	0.13871	0.052408	0.049798				
362	SA-EAGLE	1172.35512	0.05	0.07619	0.035398	-0.00708	-0.01515	-0.012	0.082996	0.064486	0.256732	-0.04643	-0.13684	-0.02439				
363	HOMECHOIC	1175.9088	-0.01136	-0.0931	-0.08112	-0.37931	0.066667	-0.05208	-0.34066	0.183333	-0.39437	-0.5907	0.136364	0.15				
364	SISA	1193.46612	0.066667	-0.07639	0.01503													

396 RAI	2362.36286	0.078652	-0.10938	-0.10526	-0.12418	0.119403	0.038667	-0.10141	-0.39286	0.035294	0.068182	0.031915	0.061856
397 KERSAF	2372.274	0.033835	0.092727	0.078203	-0.09657	0.12069	-0.00923	-0.12236	0.097665	0.035783	-0.04807	0.033003	0.034505
398 CCH	2423.88036	0.3	-0.48397	-0.31056	-0.43694	0.04	-0.27692	-0.02766	0.201313	-0.05464	-0.35453	-0.19403	-0.11852
399 FRONTRNGE	2437.10768	-0.11538	0.234783	-0.09331	-0.44078	-0.0625	-0.01852	-0.0717	-0.24878	-0.08009	-0.23529	-0.29231	-0.1087
400 HCI	2513.40848	0.44	0.138889	-0.08537	-0.12	-0.04545	0.079365	-0.02941	-0.0303	0.070313	-0.21898	-0.23384	0.173171
401 A-V-I	2520.76	0.174497	-0.13571	0.041322	0.031746	-0.03077	0.004762	0.042654	0.113636	0.09932	-0.06812	0.075862	0.024359
402 TRUWTHS	2794.22353	-0.14286	-0.13333	0.011538	-0.05769	0.05102	0.067961	0.018182	0.008929	-0.06814	-0.25	-0.02584	-0.02632
403 FOSCHINI	2815.04	-0.06231	-0.09177	-0.05226	-0.10294	-0.18033	0.166	-0.06987	0.051643	-0.01786	-0.14182	-0.20816	-0.11585
404 CAPTALL	2964.93564	-0.01824	-0.0774	-0.09396	-0.01481	0.015038	-0.18519	-0.02273	0.038835	0.028037	-0.22727	0.082353	0.130435
405 AFHARV	3011.247	0.035897	-0.15842	-0.04706	-0.01235	-0.325	0.185185	-0.14063	-0.05455	-0.03846	-0.09	0.098901	-0.01
406 TIB	3043.92	-0.05185	0	0.054688	-0.09926	0.151316	0.257143	-0.04545	0.083333				
407 STEINHOFF	3054.8984	0.090164	-0.01053	-0.13374	0.050877	-0.07846	0.086957	0.025	0.02439	0.01746	-0.06552	0.033898	0.081967
408 RAD	3154	0.153846	-0.39216	-0.22581	0.041667	-0.176	0.019417	-0.21905	0.195122	0.122449	-0.04545	-0.02857	-0.01961
409 AFROX	3217.51814	0.018727	-0.02941	0	-0.10806	-0.02542	0.094783	-0.07258	0.052174	0.012397	-0.08163	-0.13778	0.142268
410 BRAIT	3250.06	0.115385	-0.16897	-0.08714	-0.16364	-0.02446	0.027855	-0.05085	0.005952	-0.02367	-0.09697	-0.08725	0.213235
411 SOFTLINE	3283.40628	0.172589	-0.09957	-0.19231	-0.17024	-0.01004	-0.09565	-0.15865	0.133333	-0.24538	-0.30735	-0.55949	0.328467
412 M-&-F	3331.41256	0.081081	-0.06563	-0.02609	-0.04577	-0.0369	0.226054	0.03125	0.007273	0	0.006098	0.136364	0.013333
413 PICKNAPY	3340.134	-0.0381	0.064356	-0.11628	0.126316	-0.01145	0.058252	0.027523	0.071429	0.016667	-0.05738	-0.03143	0.244344
414 PERGRIN	3356.58202	0.323529	-0.18889	-0.0274	-0.24648	-0.04299	0.066406	0.144689	-0.01626	-0.2562	-0.05556	-0.27059	0.061129
415 REBSERV	3377.28374	0.228324	-0.10588	-0.07832	-0.09972	-0.00633	0.019108	0	0.11875	-0.09777	-0.12226	-0.14286	0.058333
416 POLIFIN	3421	0	0	0	0	0	0	0	0	0	0	0	0
417 TEGKOR	3637.06	-0.02795	-0.0655	0.094017	-0.08594	0.121368	0.280488	-0.03571	0.08842				
418 NASPERS	3672.47944	0.351786	0.192867	-0.11517	-0.1239	-0.13286	-0.06919	0.072566	0.058416	-0.07668	-0.04746	-0.4306	-0.03906
419 SUPRGRP	3921.40392	-0.10698	-0.16667	0.0375	-0.03614	-0.175	0.216667	-0.05479	-0.06757	-0.0942	-0.088	-0.04386	-0.00917
420 CADSWEP	4134.402	-0.0431	0.072072	-0.05882	0.017857	-0.06149	0.066667	-0.15	0.008403	-0.03938	0.213115	-0.17568	0.005464
421 WOOLIES	4141.1769	-0.0439	0.045918	-0.08171	-0.12973	-0.05901	0.138614	-0.08696	0.301587	-0.16463	-0.1194	0.030508	-0.04605
422 JDGROUP	4142.6	-0.07547	0.020408	-0.0958	0.021229	-0.19037	0.216216	-0.06667	0.157143	-0.01337	-0.21585	-0.08617	0.173275
423 ALEXFBS	4326.4	0.06079	-0.12321	0.003268	-0.00977	-0.05263	0.126875	0.00625	0.093168	-0.05682	-0.03313	-0.00118	0.0347
424 SHOPRIT	4385.87553	-0.23077	-0.02857	0.041912	0	-0.01429	-0.01449	-0.02206	0.105263	0.027891	-0.04826	-0.04225	0.176471
425 TONGAAT	4430.15892	-0.15385	-0.21591	-0.01594	0.04	-0.02367	-0.09848	0.008403	0.220667	-0.02778	-0.09286	0.086614	0.105797
426 JOHNCOM	4488.93424	0.121212	0.344595	-0.09548	-0.05556	-0.08824	0.063226	-0.09769	-0.0473	0.056738	-0.12752	-0.26154	0.34375
427 MIHH	4658.4032	0.346705	0.459574	-0.0379	-0.30303	-0.23913	-0.21143	0.11413	0.297561	-0.07519	-0.10027	-0.4247	-0.06545
428 ADCOCK	4684.875	0	0	0	0	0	0	0	0	0	0	0	0
429 ISCOR	4710.42	0.124464	-0.32252	-0.01408	-0.14286	0.04	-0.25962	0.277056	0.098305	-0.07099	-0.20266	-0.15417	0.211823
430 WOOLTRU	4899.582	-0.04878	-0.20513	0.010753	-0.0163	-0.09392	-0.04878	0.025641	0.2	-0.10729	-0.12738	-0.18145	-0.00833
431 PEKOR	5015.7536	-0.11379	-0.10117	-0.01299	0.044843	0.021459	0.02521	-0.0123	0.120332	0.037037	-0.22383	-0.10516	-0.24242
432 METLIFE	5152	-0.07477	-0.12121	-0.04598	-0.07229	0.071429	0.088485	0.016949	0.072222	-0.12228	-0.09091	0.019481	0.248408
433 METCASH	5341.29484	-0.07143	-0.04615	-0.08871	-0.09558	-0.18982	0.031401	-0.06905	0.173913	-0.09586	-0.23814	-0.44479	-0.41477
434 BOECORP	5413.83	0.059957	-0.09091	0.048889	-0.00424	-0.99787	0	0	0	0	0	0	0
435 ABI	5460.57	-0.00952	-0.10577	-0.10323	-0.05276	0.075949	0.058824	-0.09091	0.05125	-0.03924	-0.03465	0.06859	0.02657
436 RA-HOLD	5597.24112	0.104651	-0.18947	-0.11039	-0.10949	0.04918	0.08375	-0.1	-0.41587	0.086957	0.025	0.04878	0.046512
437 NAIL	5758.09512	0.045845	-0.12329	-0.525	-0.01316	0.013333	0.085526	0.030303	0.029412	-0.08	-0.09317	0.027397	0.2
438 JHNNIC	5856.199	0.231944	0.195039	-0.0506	0	-0.124	0.061644	0.021505	0.015789	-0.02902	-0.08218	-0.29186	0.34647
439 M-CELL	6227.6634	0.252101	0.275168	-0.05263	0.008333	-0.02479	-0.07045	-0.04718	-0.04153	-0.03333	-0.03448	-0.28571	0.2665
440 AFLIFE	6360.672	0.113772	-0.12473	-0.0602	-0.12418	-0.00299	-0.22455	-0.30077	0.073446	0.052632	-0.3375	-0.10943	-0.00636
441 ABIL	6408.8281	0.102362	-0.05357	0.045283	-0.05762	-0.04437	-0.36714	-0.08014	-0.08589	-0.12752	-0.07846	-0.13189	0.028464
442 BARWORLD	6494.9	-0.01242	0.062857	-0.06882	-0.01848	-0.09647	0.070313	0.037037	0.084524	-0.03403	-0.10227	0.053165	0.173077
443 NAMPAK	6914.592	-0.09214	-0.01791	-0.07599	0.039474	-0.16595	0.126923	-0.12287	0.046693	-0.01115	-0.17293	-0.04545	0.090952
444 PROFURN	6959.07384	-0.12979	-0.11864	-0.11683	-0.09492	-0.07317	0.052632	0.15	0.01087	-0.07527	-0.13953	-0.24324	-0.00357
445 FEDSURE	7462.44	-0.024	-0.17418	-0.0397	0.002667	-0.26064	0.18705	-0.02879	-0.01092	-0.09148	-0.21786	0.369863	0.04
446 TIGBRANDS	8334.506	0.042254	-0.08108	0	0.014706	-0.04348	-0.06848	0.052632	-0.13125	0.016187	-0.0708	0.047619	0.208182
447 LIB-HOLD	8381.6328	-0.02591	-0.09574	0.025294	-0.03643	-0.0622	0.137841	-0.08571	0.04375	0.03503	-0.08994	0.046814	0.18012
448 CGSMITH	8669.757	-0.04444	-0.074	0	0	0	0	0	0	0	0	0	0
449 GENSEC	8716.15314	0.045161	0.014815	-0.04501	-0.13613	-0.21212	0.038462	-0.01481	0.321429	-0.00996	0.007184	0.047076	0.001362
450 RMBH	8872.027	-0.0458	-0.108	0.044215	-0.03896	-0.08559	-0.00493	-0.02673	0.113937	-0.07763	-0.00921	0.005102	0.187817
451 INHOLD	9055.61028	-0.02542	0.017391	-0.03846	-0.04	-0.07593	0.004384	0.004061	0.081901	-0.08037	-0.01423	0.019588	0.152821
452 COROHL	9103.536	-0.03438	-0.04303	0.03876	-0.04478	-0.12813	-0.04122	0.041121	0.005386	-0.11161	-0.05528	-0.01596	0.145946
453 REMBR-BEH	9554.4	-0.06667	0.013736	0.01626	-0.096	0.150442	0.194872	-0.00429	0.077586				
454 BEVCON	9609.636	-0.98817	0	0	0	0	0	0	0	0	0	0	0
455 DATATEC	10036.25538	-0.03867	0.37931	-0.19444	-0.575	-0.08722	0.04	0.211538	0.107584	-0.1242	-0.13455	-0.24475	0.001391
456 IMPERIAL	11017.545	-0.00446	-0.07463	-0.09677	0.035714	-0.11207	0.071845	0.047101	0.15917	-0.15224	-0.06866	0.039698	0.096364
457 BOE	12287.6	0.058333	-0.06457	-0.07912	-0.00914	-0.21587	-0.08235	0.012987	0.120513	-0.06407	-0.05868	-0.05195	0.254795
458 COMPAREX	12504.33728	-0.06961	0.103491	-0.73672	-0.12876	-0.01478	0.195	-0.0795	-0.01818	-0.03241	-0.07751	-0.18568	0.063694
459 SAPPI	12822.414	0.052632	-0.17969	-0.03619	-0.06126	0.094737	-0.01923	0.121569	0.086434	-0.12295	-0.03178	-0.0444	0.128881
460 BIDVEST	14412.4608	-0.09	-0.03	-0.04	0.0	-0.10	0.04	0.06	0.02	-0.01	-0.14	-0.02	0.09
461 LIBERTY	17006.2032	-0.0338	-0.10204	0.037338	0.016	-0.07087	0.09322	-0.06202	0.07438	-0.00569	-0.08847	0.031196	0.134454
462 DIDATA	17054.78346	0.082902	0.411483	-0.01186	-0.23671	0.089888	0.156701	0.057041	0.146712	-0.01765	-0.02395	-0.19325	-0.02281
463 INVSTEC	19426.4	-0.06593	0.035294	-0.01439	-0.03613	-0.08293	0.008804	0.016652	0.077586	-0.076	-0.02165	0.004872	0.125
464 ABSA	19742.15	-0.05797	-0.05769	-0.02449	0.004184	0.0625	0.03098	-0.01946	0.142857	-0.04861	-0.06204	-0.05447	0.195062
465 SANLAM	21396.076	0.02907	-0.09605	0.03875	-0.01324	-0.06584	0.06516	0.042447	0.005988	-0.0119	-0.05422	0.029299	0.183168
466 VENFIN	24095.52	-0.07167	0.024869	0.054545	-0.0931	0.155894	0.077303	-0.03817	0.1	-0.83406	-0.1703	-0.179	0.171512
467 SASOL	24858.12	-0.02544	-0.18474	0.025369	-0.02451	0.146985	-0.00329	-0.03077	0.292517	0.024035	0.015789	-0.05527	-0.10512
468 NEDCOR	29709.1668	0.043539	0.063257	-0.00557	-0.08505	0.105634	0.089172	-0.13614	0.049892	0.038569</			

APPENDIX 5a

AVERAGE MONTHLY REAL INTEREST RATES

Year	REAL INTEREST RATES											
	J	F	M	A	M	J	J	A	S	O	N	D
1979												-4.09
1980	-3.21	-3.81	-3.71	-3.65	-4.31	-4.78	-1.91	-1.83	-2.32	-3.49	-4.70	-3.51
1981	-3.51	-3.91	-3.82	-3.05	-1.87	-1.02	-2.01	-3.03	-2.76	-1.26	-1.10	-0.38
1982	-0.92	0.89	-0.64	-1.33	-1.75	-1.12	0.20	0.92	1.12	-1.31	-0.69	-0.63
1983	-1.03	-1.83	-0.65	-0.69	-0.12	1.31	1.43	1.08	2.15	2.75	2.47	2.52
1984	3.06	3.69	3.34	3.24	2.87	2.50	2.18	2.74	2.38	3.41	3.11	3.16
1985	2.43	0.34	1.25	0.74	0.50	-0.09	0.43	0.19	-0.03	0.12	-0.05	-1.28
1986	-3.28	-0.65	-1.42	-1.02	-0.17	0.56	-1.64	-3.32	-4.31	-2.72	-2.89	-2.69
1987	-0.73	-0.93	-1.64	-0.93	-1.63	-1.46	-0.50	-0.90	-0.62	-0.39	0.10	0.62
1988	1.59	2.58	2.85	2.86	3.21	3.26	3.10	3.27	3.39	3.67	4.05	3.85
1989	3.00	2.66	2.66	2.86	2.07	1.41	1.52	1.37	1.56	1.99	1.71	0.33
1990	0.22	0.64	0.72	1.49	2.05	2.79	2.86	2.37	1.94	2.16	1.03	1.28
1991	1.48	0.57	1.30	0.95	0.64	0.99	0.44	1.13	1.23	0.35	1.17	0.27
1992	0.42	0.91	0.65	0.57	1.19	0.75	0.58	0.05	0.59	1.93	3.16	4.93
1993	4.53	4.87	4.41	3.65	3.86	4.26	3.93	4.15	3.95	3.29	2.93	2.41
1994	1.93	2.74	3.62	5.80	6.08	6.53	6.38	5.98	6.16	6.47	6.52	6.30
1995	6.76	6.27	5.81	5.22	5.50	6.15	7.00	7.79	8.51	8.32	7.52	7.17
1996	6.41	7.17	8.22	9.73	10.15	8.31	7.78	7.80	6.45	6.15	6.43	6.22
1997	5.90	4.73	5.11	4.87	5.06	5.45	4.68	5.12	5.68	6.08	7.24	7.60
1998	7.54	7.72	7.51	7.53	7.97	8.98	8.68	8.64	8.48	6.88	6.10	6.74
1999	6.38	5.80	6.11	6.43	7.55	7.13	9.63	11.67	13.16	13.08	12.13	11.46
2000	10.61	10.86	10.20	9.33	9.26	8.78	7.52	6.29	6.43	6.21	5.93	5.55

Year	CHANGE REAL INTEREST RATES											
	J	F	M	A	M	J	J	A	S	O	N	D
1980	0.88	-0.60	0.09	0.07	-0.66	-0.46	2.86	0.08	-0.49	-1.17	-1.21	1.19
1981	0.00	-0.40	0.09	0.77	1.18	0.84	-0.98	-1.03	0.27	1.51	0.16	0.71
1982	-0.54	1.81	-1.52	-0.69	-0.42	0.63	1.32	0.72	0.20	-2.43	0.61	0.07
1983	-0.41	-0.79	1.18	-0.05	0.57	1.44	0.11	-0.34	1.06	0.60	-0.27	0.05
1984	0.54	0.62	-0.35	-0.09	-0.38	-0.37	-0.31	0.56	-0.36	1.03	-0.30	0.05
1985	-0.73	-2.10	0.91	-0.50	-0.24	-0.59	0.52	-0.23	-0.23	0.15	-0.16	-1.24
1986	-2.00	2.63	-0.77	0.40	0.85	0.74	-2.20	-1.68	-0.99	1.59	-0.17	0.20
1987	1.96	-0.20	-0.71	0.70	-0.70	0.17	0.96	-0.40	0.29	0.23	0.49	0.51
1988	0.97	0.99	0.27	0.01	0.35	0.05	-0.15	0.16	0.12	0.28	0.38	-0.19
1989	-0.85	-0.34	0.00	0.20	-0.79	-0.66	0.11	-0.14	0.19	0.43	-0.29	-1.37
1990	-0.12	0.42	0.08	0.77	0.56	0.74	0.07	-0.49	-0.43	0.22	-1.13	0.25
1991	0.20	-0.91	0.73	-0.34	-0.32	0.35	-0.55	0.69	0.10	-0.88	0.82	-0.90
1992	0.15	0.49	-0.26	-0.08	0.61	-0.44	-0.17	-0.53	0.55	1.33	1.23	1.77
1993	-0.40	0.34	-0.45	-0.76	0.21	0.40	-0.33	0.22	-0.20	-0.66	-0.36	-0.52
1994	-0.48	0.81	0.87	2.18	0.28	0.45	-0.15	-0.40	0.19	0.31	0.05	-0.22
1995	0.45	-0.49	-0.46	-0.59	0.28	0.65	0.85	0.79	0.72	-0.19	-0.81	-0.35
1996	-0.76	0.76	1.05	1.51	0.42	-1.84	-0.52	0.02	-1.35	-0.30	0.28	-0.21
1997	-0.32	-1.18	0.38	-0.24	0.19	0.39	-0.76	0.43	0.56	0.40	1.17	0.36
1998	-0.07	0.19	-0.21	0.01	0.44	1.01	-0.30	-0.03	-0.16	-1.60	-0.78	0.64
1999	-0.36	-0.58	0.31	0.32	1.13	-0.42	2.50	2.03	1.49	-0.08	-0.94	-0.67
2000	-0.86	0.26	-0.66	-0.87	-0.07	-0.49	-1.26	-1.23	0.14	-0.22	-0.28	-0.38

APPENDIX 5b**MONTH ENDING REAL INTEREST RATES**

Year	REAL INTEREST RATES											
	J	F	M	A	M	J	J	A	S	O	N	D
1979												-4.07
1980	-3.37	-3.97	-3.86	-3.59	-4.09	-4.47	-1.80	-1.58	-1.65	-2.35	-3.10	-3.49
1981	-2.73	-3.06	-2.97	-2.15	-1.84	-1.01	-1.98	-2.97	-2.58	-1.24	-1.04	-0.19
1982	-0.33	0.69	-0.81	-1.78	-2.27	-1.29	0.23	0.04	-0.58	-1.87	-1.61	-2.18
1983	-2.87	-2.44	-1.17	-0.91	-0.04	1.00	0.74	0.56	1.32	2.50	2.37	2.29
1984	3.19	4.20	3.46	3.30	2.95	2.53	3.56	3.92	4.29	3.44	2.43	3.20
1985	3.23	1.33	1.80	0.95	0.08	-1.00	0.03	0.27	0.70	1.04	1.09	-0.33
1986	-2.78	-0.64	-1.18	-1.03	-0.11	0.28	-2.40	-3.85	-3.61	-2.51	-2.05	-4.47
1987	-0.42	-1.17	-1.84	-0.78	-1.51	-1.45	-0.71	-0.98	-0.65	-0.27	0.06	0.59
1988	1.97	2.69	2.84	2.99	2.23	3.18	3.18	3.30	3.52	3.76	4.11	3.83
1989	2.99	2.72	2.83	2.99	2.10	1.43	1.51	1.37	1.48	1.99	1.29	0.11
1990	0.19	0.72	0.97	1.57	2.09	2.80	2.79	2.44	1.96	2.24	0.94	1.20
1991	1.21	0.55	1.47	0.94	0.73	1.15	0.62	1.22	1.37	0.22	1.07	0.29
1992	0.53	0.88	0.60	0.47	1.14	0.58	0.34	0.21	0.31	2.46	3.43	5.02
1993	4.66	5.06	4.79	3.79	4.01	4.27	3.83	4.25	3.94	3.43	3.02	2.24
1994	2.49	2.73	4.01	5.30	6.16	6.92	6.51	6.81	6.29	6.42	6.34	6.49
1995	6.73	6.16	5.83	5.37	5.50	6.12	6.82	7.67	8.20	8.06	7.60	6.93
1996	6.41	7.78	8.43	10.12	10.04	7.72	8.20	7.61	6.42	6.54	6.31	6.30
1997	5.58	4.50	5.28	4.55	4.98	5.19	4.50	5.29	5.49	6.83	7.10	7.30
1998	7.50	7.70	7.34	7.59	8.43	9.49	8.34	11.05	7.62	6.00	6.08	6.35
1999	6.13	5.33	6.33	6.44	7.61	7.39	9.84	11.67	12.87	12.89	12.15	11.25
2000	10.85	11.03	10.39	9.58	8.91	8.63	7.34	6.30	6.27	6.23	5.75	5.39

Year	CHANGE REAL INTEREST RATES											
	J	F	M	A	M	J	J	A	S	O	N	D
1980	0.70	-0.60	0.11	0.27	-0.50	-0.38	2.67	0.22	-0.07	-0.69	-0.75	-0.39
1981	0.75	-0.33	0.10	0.82	0.31	0.84	-0.97	-0.99	0.38	1.35	0.20	0.85
1982	-0.14	1.02	-1.50	-0.98	-0.48	0.98	1.52	-0.19	-0.62	-1.29	0.26	-0.57
1983	-0.69	0.44	1.26	0.26	0.87	1.04	-0.26	-0.18	0.76	1.18	-0.13	-0.09
1984	0.90	1.01	-0.74	-0.16	-0.35	-0.42	1.02	0.37	0.37	-0.85	-1.01	0.77
1985	0.03	-1.90	0.47	-0.85	-0.87	-1.08	1.03	0.24	0.43	0.34	0.05	-1.42
1986	-2.45	2.14	-0.53	0.14	0.92	0.39	-2.68	-1.45	0.24	1.10	0.46	-2.42
1987	4.05	-0.75	-0.67	1.06	-0.73	0.05	0.74	-0.27	0.33	0.38	0.33	0.53
1988	1.38	0.72	0.15	0.15	-0.76	0.95	0.00	0.12	0.21	0.24	0.35	-0.27
1989	-0.85	-0.26	0.11	0.16	-0.89	-0.66	0.08	-0.14	0.11	0.51	-0.70	-1.18
1990	0.08	0.53	0.25	0.60	0.52	0.72	-0.01	-0.35	-0.49	0.28	-1.30	0.26
1991	0.01	-0.66	0.92	-0.53	-0.21	0.42	-0.54	0.61	0.14	-1.14	0.85	-0.78
1992	0.24	0.35	-0.29	-0.13	0.68	-0.56	-0.24	-0.13	0.10	2.15	0.97	1.59
1993	-0.36	0.40	-0.27	-0.99	0.21	0.26	-0.44	0.42	-0.31	-0.51	-0.41	-0.78
1994	0.25	0.24	1.27	1.30	0.85	0.76	-0.41	0.30	-0.52	0.13	-0.08	0.15
1995	0.25	-0.58	-0.33	-0.46	0.13	0.61	0.70	0.85	0.53	-0.14	-0.46	-0.67
1996	-0.51	1.37	0.65	1.70	-0.08	-2.33	0.48	-0.59	-1.19	0.11	-0.23	-0.01
1997	-0.71	-1.08	0.78	-0.73	0.42	0.21	-0.68	0.79	0.20	1.33	0.27	0.20
1998	0.20	0.20	-0.36	0.25	0.83	1.07	-1.15	2.71	-3.43	-1.62	0.08	0.28
1999	-0.22	-0.80	1.00	0.11	1.17	-0.23	2.45	1.83	1.20	0.02	-0.74	-0.90
2000	-0.40	0.17	-0.64	-0.80	-0.68	-0.27	-1.29	-1.04	-0.03	-0.04	-0.48	-0.36

APPENDIX 5c

INFLATION

Year	INFLATION - INDEX											
	J	F	M	A	M	J	J	A	S	O	N	D
	1990=100											
1973	10.9	11	11.1	11.2	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.8
1974	11.9	12	12.2	12.3	12.4	12.6	12.8	13	13.2	13.3	13.4	13.5
1975	13.7	13.8	13.9	14.1	14.2	14.4	14.5	14.7	14.8	14.9	15	15.1
1976	15.2	15.3	15.5	15.7	15.8	16	16.1	16.3	16.4	16.5	16.6	16.7
1977	16.9	17.1	17.3	17.5	17.6	17.7	17.9	18.2	18.3	18.4	18.5	18.6
1978	18.8	18.9	19	19.2	19.3	19.3	20.2	20.3	20.4	20.6	20.7	20.8
1979	21	21.1	21.4	21.6	21.7	22	22.8	23.1	23.4	23.5	23.6	23.7
1980	23.8	24.1	24.2	24.5	24.8	25.2	25.6	25.8	26.3	26.8	27.1	27.4
1981	27.5	28	28.2	28.3	28.5	28.9	29.5	30	30.5	30.8	31	31.2
1982	31.4	31.7	32.4	33	33.2	33.5	33.8	34.2	34.7	35.2	35.4	35.5
	1995=100											
1973	6.4	6.4	6.5	6.6	6.6	6.6	6.7	6.7	6.8	6.9	6.9	6.9
1974	7.0	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	7.9
1975	8.0	8.1	8.1	8.3	8.3	8.4	8.5	8.6	8.7	8.7	8.8	8.8
1976	8.9	9.0	9.1	9.2	9.3	9.4	9.4	9.6	9.6	9.7	9.7	9.8
1977	9.9	10.0	10.1	10.3	10.3	10.4	10.5	10.7	10.7	10.8	10.8	10.9
1978	11.0	11.1	11.1	11.3	11.3	11.3	11.8	11.9	12.0	12.1	12.1	12.2
1979	12.3	12.4	12.5	12.7	12.7	12.9	13.4	13.5	13.7	13.8	13.8	13.9
1980	13.9	14.1	14.2	14.4	14.5	14.8	15.0	15.1	15.4	15.7	15.9	16.1
1981	16.1	16.4	16.5	16.6	16.7	16.9	17.3	17.6	17.9	18.0	18.2	18.3
1982	18.4	18.6	19.0	19.3	19.5	19.6	19.8	20.0	20.3	20.6	20.7	20.8
1983	21.00	21.4	21.6	21.80	21.9	22	22.2	22.5	22.6	22.8	23.00	23.1
1984	23.2	23.5	23.8	24.2	24.4	24.6	24.9	25.1	25.3	25.7	26	26.1
1985	26.4	27.3	27.4	28	28.3	28.7	28.9	29.2	29.5	30	30.4	30.9
1986	31.9	32.2	32.6	33.2	33.2	33.5	34.2	34.7	35.3	35.7	36.2	36.6
1987	37	37.5	38.1	38.6	39	39.3	39.7	40.3	40.9	41.3	41.7	42
1988	42.3	42.6	43.2	43.7	44	44.2	44.7	45.3	45.9	46.4	46.8	47.2
1989	47.9	48.4	49.2	49.8	50.6	51.1	51.6	52.3	52.8	53.2	53.8	54.5
1990	55.2	55.6	56.5	57	57.6	58	58.4	59.4	60.3	60.7	62	62.4
1991	63.1	63.9	64.5	65.4	66.4	66.8	67.7	68.6	69.6	70.9	71.6	72.6
1992	73.3	74	74.6	75.6	76.1	76.9	77.6	78.4	79	79.2	79.5	79.5
1993	80.4	80.7	81.8	83.9	84.2	84.6	85.3	85.7	86.1	86.7	86.9	87.1
1994	88.4	88.6	89.2	89.8	90.3	90.9	92.3	93.7	94.8	95.2	95.4	95.7
1995	96.9	97.4	98.4	99.7	100.1	100	100.6	100.8	100.9	101.2	101.5	102.3
1996	103.6	103.7	104.6	105.2	105.9	106.9	107.7	108.3	109.4	110.4	110.8	111.9
1997	113.3	113.9	114.6	115.6	116	116.3	117.5	117.7	118.2	118.7	118.3	118.7
1998	119.7	120	120.8	121.4	121.9	122.3	125.3	126.7	128.9	129.4	129.4	129.4
1999	130.4	130.3	130.4	130.7	130.5	131.2	131.4	130.8	131.4	131.6	131.9	132.3
2000	133.8	133.4	134.8	136.6	137.1	137.9	139.2	139.7	140.4	140.9	141.2	141.5

Year	INFLATION AS PERCENTAGE											
	J	F	M	A	M	J	J	A	S	O	N	D
1974	9.38	9.38	9.23	9.09	10.61	12.12	11.94	13.43	13.24	13.04	14.49	14.49
1975	14.29	15.71	14.08	15.28	13.70	13.51	13.33	13.16	12.99	11.54	11.39	11.39
1976	11.25	11.11	12.35	10.84	12.05	11.90	10.59	11.63	10.34	11.49	10.23	11.36
1977	11.24	11.11	10.99	11.96	10.75	10.64	11.70	11.46	11.46	11.34	11.34	11.22
1978	11.11	11.00	9.90	9.71	9.71	8.65	12.38	11.21	12.15	12.04	12.04	11.82
1979	11.82	11.71	12.61	12.39	12.39	14.16	13.56	13.45	14.17	14.05	14.05	14.04
1980	13.01	13.71	13.60	13.39	14.17	14.73	11.94	11.85	12.41	13.77	15.22	15.83
1981	15.83	16.31	16.20	15.28	15.17	14.19	15.33	16.56	16.23	14.65	14.47	13.66
1982	14.29	13.41	15.15	16.27	16.77	15.98	14.45	13.64	13.41	14.44	13.74	13.66
1983	14.13	15.05	13.68	12.95	12.31	12.24	12.12	12.50	11.33	10.68	11.11	11.06
1984	10.48	9.81	10.19	11.01	11.42	11.82	12.16	11.56	11.95	12.72	13.04	12.99
1985	13.79	16.17	15.13	15.70	15.98	16.67	16.06	16.33	16.60	16.73	16.92	18.39
1986	20.83	17.95	18.98	18.57	17.31	16.72	18.34	18.84	19.66	19.00	19.08	18.45
1987	15.99	16.46	16.87	16.27	17.47	17.31	16.08	16.14	15.86	15.69	15.19	14.75
1988	14.32	13.60	13.39	13.21	12.82	12.47	12.59	12.41	12.22	12.35	12.23	12.38
1989	13.24	13.62	13.89	13.96	15.00	15.61	15.44	15.45	15.03	14.66	14.96	15.47
1990	15.24	14.88	14.84	14.46	13.83	13.50	13.18	13.58	14.20	14.10	15.24	14.50
1991	14.31	14.93	14.16	14.74	15.28	15.17	15.92	15.49	15.42	16.80	15.48	16.35
1992	16.16	15.81	15.66	15.60	14.61	15.12	14.62	14.29	13.51	11.71	11.03	9.50
1993	9.69	9.05	9.65	10.98	10.64	10.01	9.92	9.31	8.99	9.47	9.31	9.56
1994	9.95	9.79	9.05	7.03	7.24	7.45	8.21	9.33	10.10	9.80	9.78	9.87
1995	9.62	9.93	10.31	11.02	10.85	10.01	8.99	7.58	6.43	6.30	6.39	6.90
1996	6.91	6.47	6.30	5.52	5.79	6.90	7.06	7.44	8.42	9.09	9.16	9.38
1997	9.36	9.84	9.56	9.89	9.54	8.79	9.10	8.68	8.04	7.52	6.77	6.08
1998	5.65	5.36	5.41	5.02	5.09	5.16	6.64	7.65	9.05	9.01	9.38	9.01
1999	8.94	8.58	7.95	7.66	7.05	7.28	4.87	3.24	1.94	1.70	1.93	2.24
2000	2.61	2.38	3.37	4.51	5.06	5.11	5.94	6.80	6.85	7.07	7.05	6.95

APPENDIX 5c

Year	CHANGE IN INFLATION											
	J	F	M	A	M	J	J	A	S	O	N	D
1975	0.10	0.10	0.00	0.20	0.00	0.10	0.10	0.10	0.10	0.00	0.10	0.00
1976	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.20	0.00	0.10	0.00	0.10
1977	0.10	0.10	0.10	0.20	0.00	0.10	0.10	0.20	0.00	0.10	0.00	0.10
1978	0.10	0.10	0.00	0.20	0.00	0.00	0.50	0.10	0.10	0.10	0.00	0.09
1979	0.11	0.10	0.10	0.20	0.00	0.20	0.50	0.10	0.20	0.10	0.00	0.10
1980	0.00	0.20	0.10	0.20	0.10	0.30	0.20	0.10	0.30	0.30	0.20	0.20
1981	0.00	0.30	0.10	0.10	0.10	0.20	0.40	0.30	0.30	0.10	0.20	0.10
1982	0.10	0.20	0.40	0.30	0.20	0.10	0.20	0.20	0.30	0.30	0.10	0.10
1983	0.20	0.40	0.20	0.20	0.10	0.10	0.20	0.30	0.10	0.20	0.20	0.10
1984	0.10	0.30	0.30	0.40	0.20	0.20	0.30	0.20	0.20	0.40	0.30	0.10
1985	0.30	0.90	0.10	0.60	0.30	0.40	0.20	0.30	0.30	0.50	0.40	0.50
1986	1.00	0.30	0.40	0.60	0.00	0.30	0.70	0.50	0.60	0.40	0.50	0.40
1987	0.40	0.50	0.60	0.50	0.40	0.30	0.40	0.60	0.60	0.40	0.40	0.30
1988	0.30	0.30	0.60	0.50	0.30	0.20	0.50	0.60	0.60	0.50	0.40	0.40
1989	0.70	0.50	0.80	0.60	0.80	0.50	0.50	0.70	0.50	0.40	0.60	0.70
1990	0.70	0.40	0.90	0.50	0.60	0.40	0.40	1.00	0.90	0.40	1.30	0.40
1991	0.70	0.80	0.60	0.90	1.00	0.40	0.90	0.90	1.00	1.30	0.70	1.00
1992	0.70	0.70	0.60	1.00	0.50	0.80	0.70	0.80	0.60	0.20	0.30	0.00
1993	0.90	0.30	1.10	2.10	0.30	0.40	0.70	0.40	0.40	0.60	0.20	0.20
1994	1.30	0.20	0.60	0.60	0.50	0.60	1.40	1.40	1.10	0.40	0.20	0.30
1995	1.20	0.50	1.00	1.30	0.40	-0.10	0.60	0.20	0.10	0.30	0.30	0.80
1996	1.30	0.10	0.90	0.60	0.70	1.00	0.80	0.60	1.10	1.00	0.40	1.10
1997	1.40	0.60	0.70	1.00	0.40	0.30	1.20	0.20	0.50	0.50	-0.40	0.40
1998	1.00	0.30	0.80	0.60	0.50	0.40	3.00	1.40	2.20	0.50	0.00	0.00
1999	1.00	-0.10	0.10	0.30	-0.20	0.70	0.20	-0.60	0.60	0.20	0.30	0.40
2000	1.50	-0.40	1.40	1.80	0.50	0.80	1.30	0.50	0.70	0.50	0.30	0.30